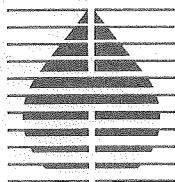


June 20, 1990

RAW ANALYTICAL DATA SUBMITTAL
PART 2, REMEDIAL INVESTIGATIVE WORK
PHASE 2B
MONTROSE SITE
TORRANCE, CALIFORNIA

APRIL 1990 GROUNDWATER SAMPLING



HARGIS+ASSOCIATES, INC.

RECEIVED

JUN 21 1990

Environmental Compliance



HARGIS + ASSOCIATES, INC.

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Lanae J. Raymond
Peter T. Quinlan
J.D. Mohrbacher, P.E.

June 20, 1990

VIA FEDERAL EXPRESS

Ms. Janet Bell
DOUGLAS AIRCRAFT COMPANY
4900 Airport Plaza Drive
Building 74
Long Beach, CA 90815

Re: Raw Analytical Data Submittal, Part 2,
Remedial Investigative Work Phase 2B,
Montrose Site, Torrance, California,
April 1990 Groundwater Sampling

Dear Ms. Bell:

Enclosed please find the above-referenced document. This submittal provides analytical data obtained during the first initial sampling round for the seven recently installed upper Bellflower aquitard monitor wells. The submittal also provides analytical data for the annual groundwater sampling round. During the annual round, the second initial sampling of the seven new monitor wells was also conducted. Monitor wells installed at the C-6 Torrance facility are MW-8, MW-9, MW-18, and MW-19.

Please contact me if you have any questions regarding this submittal.

Sincerely,

J.D. Mohrbacher HARGIS + ASSOCIATES, INC.

J.D. Mohrbacher, P.E.
Project Manager

JDM/MPW/djr

cc: Mr. Dan M. Greeno
Karl S. Lytz, Esq.
Ron Stuff, Esq.

bell09.218.2

Matthew P. Wiedlin
Matthew P. Wiedlin
RI Task Manager

Other Offices:

Tucson, AZ
Mesa, AZ
Manhattan Beach, CA
Burbank, CA



HARGIS + ASSOCIATES, INC.

RAW ANALYTICAL DATA SUBMITTAL
PART 2, REMEDIAL INVESTIGATIVE WORK
PHASE 2B
MONTROSE SITE
TORRANCE, CALIFORNIA

APRIL 1990 GROUNDWATER SAMPLING

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- C ANALYTICAL TECHNOLOGIES, INC. RAW ANALYTICAL DATA FOR LABORATORY SPLIT SAMPLES FROM INITIAL GROUNDWATER SAMPLING ROUND, APRIL 5-6, 1990
- D SAMPLE IDENTIFICATION AND CROSS REFERENCE TABLES, INITIAL GROUNDWATER SAMPLING ROUND FOR WELLS MW-16 THROUGH MW-22 AND ANNUAL GROUNDWATER SAMPLING ROUND, APRIL 16-21, 1990
- E BROWN & CALDWELL RAW ANALYTICAL DATA FROM INITIAL GROUNDWATER SAMPLING ROUND FOR WELLS MW-16 THROUGH MW-22 AND ANNUAL GROUNDWATER SAMPLING ROUND, APRIL 16-21, 1990
- F ANALYTICAL TECHNOLOGIES, INC. RAW ANALYTICAL DATA FOR LABORATORY SPLIT SAMPLES FROM INITIAL GROUNDWATER SAMPLING ROUND FOR WELLS MW-16 THROUGH MW-22 AND ANNUAL GROUNDWATER SAMPLING ROUND, APRIL 16-21, 1990



HARGIS + ASSOCIATES, INC.

RAW ANALYTICAL DATA SUBMITTAL
PART 2, REMEDIAL INVESTIGATIVE WORK
PHASE 2B
MONTROSE SITE
TORRANCE, CALIFORNIA

APRIL 1990 GROUNDWATER SAMPLING

1.0 INTRODUCTION

This raw analytical data submittal has been prepared on behalf of Montrose Chemical Corporation (Montrose) as part of the Remedial Investigation (RI). This submittal is being provided in accordance with the Administrative Order on Consent, U.S. Environmental Protection Agency (EPA) Docket No. 85-04.

The submittal contains analytical data obtained in April 1990 during the initial sampling for monitor wells MW-16 through MW-22 and the annual groundwater sampling round.



2.0 GROUNDWATER SAMPLING

Groundwater sampling conducted during April 1990 consisted of two initial sampling rounds for newly constructed monitor wells MW-16 through MW-22 and one annual sampling round (Table 1; Figure 1). The first initial groundwater sampling round was conducted on April 5 and 6, 1990. The second initial groundwater sampling round was combined with the annual groundwater sampling round conducted during the period April 16 through 21, 1990. Groundwater sampling was performed in accordance with the EPA-approved Quality Assurance Project Plan (QAPP) and the Sampling Plan (SAP), dated May 20, 1988 (Hargis + Associates, Inc., 1988a and 1988b).

Monitor wells MW-20 and MW-21 were excluded from the second initial sampling round due to health and safety considerations. Monitor well MW-2 was excluded from the annual sampling round due to health and safety considerations. Monitor well LG-1 was not sampled during the annual sampling round because the dedicated sample pump malfunctioned.

Groundwater samples, including duplicate samples and field blanks collected during the sampling rounds, were submitted to Brown and Caldwell Laboratories, Glendale, California, for pesticide analysis using EPA Method 608/8080 and volatile organic compound (VOC) analysis using EPA Method 624/8240. Trip blanks were submitted to Brown and Caldwell Laboratories for VOC analysis using EPA Method 624/8240. Laboratory split samples collected during the sampling rounds were submitted to Analytical Technologies, Inc. (ATI), San Diego, California, for pesticide analysis using EPA Method 608/8080 and VOC analysis using EPA Method 624/8240. All groundwater samples submitted for VOC analysis were collected in pre-acidified vials. Samples collected for common ion and nitrate analysis were submitted to Brown and Caldwell Laboratories (Appendices A through F).



3.0 REFERENCES CITED

Hargis + Associates, Inc., 1988a. Remedial Investigative Work, Part 2, Quality Assurance Project Plan, Montrose Site, Torrance, California. Prepared for Montrose Chemical Corporation, Torrance, California; May 20, 1988.

_____, 1988b. Remedial Investigative Work, Part 2, Phase 2A Groundwater, Soil, and Sediment Sampling Plan, Montrose Site, Torrance, California. Prepared for Montrose Chemical Corporation, Torrance, California; May 20, 1988.

Tables

TABLE 1
SUMMARY OF MONITOR WELL SAMPLING
APRIL 1990

.....DATES OF SAMPLING ROUND.....

| <u>WELL ID</u> | <u>APRIL 5-6, 1990</u> <u>INITIAL ROUND</u> | <u>APRIL 16-21, 1990</u> <u>ANNUAL ROUND/</u> <u>INITIAL ROUND*</u> |
|----------------|--|---|
| MW-1 | --- | A |
| MW-3 | --- | A |
| MW-4 | --- | A |
| MW-5 | --- | A |
| MW-6 | --- | A |
| MW-7 | --- | A |
| MW-8 | --- | A |
| MW-9 | --- | A |
| MW-10 | --- | A |
| MW-11 | --- | A |
| MW-12 | --- | A |
| MW-13 | --- | A |
| MW-14 | --- | A |
| MW-15 | --- | A |
| MW-16 | A,B | A |
| MW-17 | A,B | A |
| MW-18 | A,B | A |
| MW-19 | A,B | A |
| MW-20 | A,C | --- |
| MW-21 | A,B | --- |
| MW-22 | A,B | A |

*Initial round for monitor wells MW-16 through MW-22;
annual round for other wells sampled

(---) = Not sampled

A = Analyzed for volatile organic compounds by EPA Method 624/8240
and for pesticides by EPA Method 608/8080

B = Analyzed for nitrates and common ions

C = Analyzed for nitrates



HARGIS + ASSOCIATES, INC.

TABLE 1 (continued)
 SUMMARY OF MONITOR WELL SAMPLING, APRIL 1990
 Page 2

.....DATES OF SAMPLING ROUND.....

| <u>WELL ID</u> | <u>APRIL 5-6, 1990</u> <u>INITIAL ROUND</u> | <u>APRIL 16-21, 1990</u> <u>ANNUAL ROUND/</u> <u>INITIAL ROUND*</u> |
|----------------|--|---|
| MW-23 | --- | A |
| MW-24 | --- | A |
| MW-25 | --- | A |
| MW-26 | --- | A |
| BF-1 | --- | A |
| BF-2 | --- | A |
| BF-3 | --- | A |
| BF-4 | --- | A |
| BF-5 | --- | A |
| BF-6 | --- | A |
| BF-7 | --- | A |
| BF-8 | --- | A |
| BF-9 | --- | A |
| BF-10 | --- | A |
| BF-11 | --- | A |
| BF-12 | --- | A |
| BF-13 | --- | A |
| BF-14 | --- | A |
| BF-15 | --- | A |
| BF-16 | --- | A |
| BF-17 | --- | A |
| G-1 | --- | A |
| G-2 | --- | A |
| G-3 | --- | A |

*Initial round for monitor wells MW-16 through MW-22;
 annual round for other wells sampled

(---) = Not sampled

A = Analyzed for volatile organic compounds by EPA Method 624/8240
 and for pesticides by EPA Method 608/8080

B = Analyzed for nitrates and common ions

C = Analyzed for nitrates



HARGIS + ASSOCIATES, INC.

TABLE 1 (continued)
SUMMARY OF MONITOR WELL SAMPLING, APRIL 1990
Page 3

.....DATES OF SAMPLING ROUND.....

| <u>WELL ID</u> | <u>APRIL 5-6, 1990</u> <u>INITIAL ROUND</u> | <u>APRIL 16-21, 1990</u> <u>ANNUAL ROUND/</u> <u>INITIAL ROUND*</u> |
|----------------|--|---|
| G-4 | --- | A |
| G-5 | --- | A |
| G-6 | --- | A |
| G-7 | --- | A |
| G-8 | --- | A |
| G-9 | --- | A |
| G-11 | --- | A |
| G-12 | --- | A |
| G-13 | --- | A |
| LG-1 | --- | --- |
| LG-2 | --- | A |
| LW-1 | --- | A |
| LW-2 | --- | A |
| LW-3 | --- | A |

*Initial round for monitor wells MW-16 through MW-22;
annual round for other wells sampled

(---) = Not sampled

A = Analyzed for volatile organic compounds by EPA Method 624/8240
and for pesticides by EPA Method 608/8080

B = Analyzed for nitrates and common ions

C = Analyzed for nitrates



HARGIS + ASSOCIATES, INC.

Illustrations

Appendix A



HARGIS + ASSOCIATES, INC.

APPENDIX A

**SAMPLE IDENTIFICATION AND CROSS REFERENCE TABLES
INITIAL GROUNDWATER SAMPLING ROUND
APRIL 5-6, 1990**



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- A-6 LABORATORY SPLIT SAMPLE IDENTIFICATION VERSUS ANALYTICAL TECHNOLOGIES, INC. LOG NUMBER
- A-7 ANALYTICAL TECHNOLOGIES, INC. LABORATORY QUALITY CONTROL SAMPLE IDENTIFICATION

TABLE A-1

**MONTROSE MONITOR WELL
SAMPLE IDENTIFICATION
VERSUS BROWN AND CALDWELL LOG NUMBER**

| <u>MONTROSE MONITOR WELL SAMPLE ID</u> | <u>DATE SAMPLED</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|--|-------------------------|--|
| MW-16 | 04-05-90 | G90-04-126-2 |
| MW-17 | 04-05-90 | G90-04-126-3 |
| MW-18 | 04-05-90 | G90-04-126-5 |
| MW-19 | 04-05-90 | G90-04-126-6 |
| MW-20 | 04-06-90 | G90-04-148-1 |
| MW-21 | 04-05-90 | G90-04-126-4 |
| MW-22 | 04-05-90 | G90-04-126-1 |



HARGIS + ASSOCIATES, INC.

TABLE A-2

FIELD DUPLICATE SAMPLE IDENTIFICATION
VERSUS BROWN AND CALDWELL LOG NUMBER

| <u>FIELD DUPLICATE SAMPLE ID</u> | <u>DATE SAMPLED</u> | <u>PRIMARY SAMPLE ID</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|--|-------------------------|------------------------------|--|
| MW-2200 | 04-05-90 | MW-22 | G90-04-126-8 |



HARGIS + ASSOCIATES, INC.

TABLE A-3

FIELD BLANK SAMPLE IDENTIFICATION
VERSUS BROWN AND CALDWELL LOG NUMBER

| <u>DATE</u> | <u>FIELD BLANK SAMPLE ID</u> | <u>SAMPLE PREPARATION LOCATION</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|-------------|----------------------------------|--|--|
| 04-05-90 | WB-1 | MW-22 | G90-04-126-7 |



HARGIS + ASSOCIATES, INC.

TABLE A-4
TRIP BLANK SAMPLE IDENTIFICATION
VERSUS BROWN AND CALDWELL LOG NUMBER

| <u>DATE SAMPLED</u> | <u>TRIP BLANK SAMPLE ID</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|-------------------------|---------------------------------|--|
| 04-05-90 | TB-1 | G90-04-126-9 |



HARGIS + ASSOCIATES, INC.

TABLE A-5

BROWN AND CALDWELL
LABORATORY QUALITY CONTROL
SAMPLE IDENTIFICATION

| <u>BROWN AND CALDWELL SAMPLE ID</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|---|--|
| MW-22 BC/QC Duplicate | G90-04-126-10 |
| MW-22 BC/QC Spike | G90-04-126-11 |
| MW-22 BC/QC Duplicate Spike | G90-04-126-12 |
| Laboratory Control Standard | G90-04-126-13 |
| Laboratory Blank | G90-04-126-14 |
| MW-20 BC/QC Duplicate | G90-04-148-2 |
| MW-20 BC/QC Spike | G90-04-148-3 |
| MW-20 BC/QC Duplicate Spike | G90-04-148-4 |
| Laboratory Control Standard | G90-04-148-5 |
| Laboratory Blank | G90-04-148-6 |



HARGIS + ASSOCIATES, INC.

TABLE A-6
LABORATORY SPLIT SAMPLE IDENTIFICATION
VERSUS ANALYTICAL TECHNOLOGIES, INC. LOG NUMBER

| <u>LABORATORY SPLIT SAMPLE ID</u> | <u>DATE SAMPLED</u> | <u>ANALYTICAL TECHNOLOGIES, INC. LOG NUMBER</u> |
|---------------------------------------|-------------------------|---|
| MW-22 | 04-05-90 | 004081-01 |



HARGIS + ASSOCIATES, INC.

TABLE A-7

ANALYTICAL TECHNOLOGIES, INC.
LABORATORY QUALITY CONTROL
SAMPLE IDENTIFICATION

| <u>ANALYTICAL TECHNOLOGIES, INC. SAMPLE ID</u> | <u>ANALYTICAL METHOD</u> | <u>DATE ANALYZED</u> | <u>ANALYTICAL TECHNOLOGIES, INC. LAB NUMBER</u> |
|--|------------------------------|--------------------------|---|
| Reagent Blank | 608/8080 | 05-05-90 | 004081 |
| Spike | 608/8080 | 05-05-90 | 004081 |
| Duplicate Spike | 608/8080 | 05-05-90 | 004081 |
| Reagent Blank | 624/8240 | 04-09-90 | 004081 |
| Spike | 624/8240 | 04-09-90 | 004081 |
| Duplicate Spike | 624/8240 | 04-09-90 | 004081 |



HARGIS + ASSOCIATES, INC.

Appendix B



HARGIS + ASSOCIATES, INC.

APPENDIX B

**BROWN AND CALDWELL RAW ANALYTICAL DATA FROM
INITIAL GROUNDWATER SAMPLING ROUND
APRIL 5-6, 1990**



HARGIS + ASSOCIATES, INC.

APPENDIX B

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REPORT LOG NO: G90-04-148

Analytical Report

AMENDED REPORT

5-16-90

LOG NO: G90-04-126

Received: 06 APR 90

Reported: 03 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 1

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|-----------|----------|
| PARAMETER | | 04-126-1 | 04-126-2 | 04-126-3 | 04-126-4 | 04-126-5 |
| 04-126-1 | MW-22 | | | | 05 APR 90 | |
| 04-126-2 | MW-16 | | | | 05 APR 90 | |
| 04-126-3 | MW-17 | | | | 05 APR 90 | |
| 04-126-4 | MW-21 | | | | 05 APR 90 | |
| 04-126-5 | MW-18 | | | | 05 APR 90 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | | 04/11/90 | 04/11/90 | 04/11/90 | 04/11/90 | 04/11/90 |
| Date Analyzed | | 04/21/90 | 04/21/90 | 04/21/90 | 04/23/90 | 04/21/90 |
| Dilution Factor, Times 1 | | 1 | 1 | 1 | 1 | 1 |
| Total BHC Isomers, ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Total DDT Metabolites, ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDD, ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDE, ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDT, ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDD, ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDE, ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDT, ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, alpha isomer, ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, beta isomer, ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, delta isomer, ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |

Analytical Report

ANALYTICAL REPORT

LOG NO: G90-04-126

Received: 06 APR 90

Reported: 03 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 2

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|----------|----------|----------|----------|
| PARAMETER | | 04-126-1 | 04-126-2 | 04-126-3 | 04-126-4 | 04-126-5 |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | | 04/10/90 | 04/10/90 | 04/10/90 | 04/10/90 | 04/10/90 |
| Dilution Factor, Times 1 | | 1 | 5 | 1 | 2000 | 20 |
| 1,1,1-Trichloroethane, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| 1,1,2-Trichloroethane, ug/L | | 4 | <5 | <1 | <2000 | <20 |
| 1,1-Dichloroethane, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| 1,1-Dichloroethene, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| 1,2-Dichloroethane, ug/L | | <1 | <5 | 2 | <2000 | <20 |
| 1,2-Dichlorobenzene, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| 1,2-Dichloropropane, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| 1,3-Dichlorobenzene, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| 1,4-Dichlorobenzene, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| 2-Chloroethylvinylether, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| Acetone, ug/L | | <10 | <50 | <10 | <20000 | <200 |
| Acrolein, ug/L | | <20 | <100 | <20 | <40000 | <400 |
| Acrylonitrile, ug/L | | <20 | <100 | <20 | <40000 | <400 |
| Bromodichloromethane, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| Bromomethane, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| Benzene, ug/L | | <1 | <5 | 16 | 230000 | 50 |
| Bromoform, ug/L | | <1 | <5 | <1 | <2000 | <20 |
| Chlorobenzene, ug/L | | <1 | <5 | 2 | <2000 | <20 |
| Carbon Tetrachloride, ug/L | | 1 | <5 | <1 | <2000 | <20 |

Analytical Report

REVISED REPORT

LOG NO: G90-04-126

Received: 06 APR 90

Reported: 03 MAY 90

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3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 3

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|--------------------------------------|--|--------------|----------|----------|----------|----------|
| PARAMETER | | 04-126-1 | 04-126-2 | 04-126-3 | 04-126-4 | 04-126-5 |
| Chloroethane, ug/L | <1 | <5 | <1 | <2000 | <20 | |
| Chloroform, ug/L | 48 | 52 | 2 | <2000 | 100 | |
| Chloromethane, ug/L | <2 | <10 | <2 | <4000 | <40 | |
| Dibromochloromethane, ug/L | <1 | <5 | <1 | <2000 | <20 | |
| Ethylbenzene, ug/L | <1 | <5 | 3 | 46000 | 20 | |
| Methylene chloride, ug/L | <2 | <10 | <2 | <4000 | <40 | |
| Trichloroethene, ug/L | 7 | 500 | <1 | <2000 | 1200 | |
| Trichlorofluoromethane, ug/L | <1 | <5 | <1 | <2000 | <20 | |
| Toluene, ug/L | 1 | <5 | <1 | <2000 | <20 | |
| Tetrachloroethene, ug/L | <1 | 20 | 1 | <2000 | <20 | |
| Vinyl chloride, ug/L | <1 | <5 | <1 | <2000 | <20 | |
| cis-1,3-Dichloropropene, ug/L | <1 | <5 | <1 | <2000 | <20 | |
| trans-1,2-Dichloroethene, ug/L | <1 | <5 | <1 | <2000 | <20 | |
| trans-1,3-Dichloropropene, ug/L | <1 | <5 | <1 | <2000 | <20 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- | --- | --- | --- | --- |
| Semi-Quantified Results ** | | | | | | |
| 2 C6 Hydrocarbons, ug/L | --- | --- | 90 | --- | --- | --- |
| A C4 Hydrocarbon, ug/L | --- | --- | 40 | --- | --- | --- |
| A C5 Hydrocarbon, ug/L | --- | --- | 200 | --- | --- | --- |

** Quantification based upon comparison of total ion count of the compound with that of the nearest internal standard.

Analytical Report

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LOG NO: G90-04-126

Received: 06 APR 90

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Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 4

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|---|--|--------------|
| 04-126-6 | MW-19 | 05 APR 90 |
| PARAMETER | 04-126-6 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | 04/11/90 | |
| Date Analyzed | 04/21/90 | |
| Dilution Factor, Times 1 | 1 | |
| Total BHC Isomers, ug/L | <0.04 | |
| Total DDT Metabolites, ug/L | <0.04 | |
| p,p'-DDD, ug/L | <0.04 | |
| p,p'-DDE, ug/L | <0.04 | |
| p,p'-DDT, ug/L | <0.04 | |
| o,p'-DDD, ug/L | <0.04 | |
| o,p'-DDE, ug/L | <0.04 | |
| o,p'-DDT, ug/L | <0.04 | |
| BHC, alpha isomer, ug/L | <0.04 | |
| BHC, beta isomer, ug/L | <0.04 | |
| BHC, delta isomer, ug/L | <0.04 | |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | |

Analytical Report

REVISED REPORT

LOG NO: G90-04-126

Received: 06 APR 90

Reported: 03 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|---------------------------------|--|--------------|
| 04-126-6 | MW-19 | 05 APR 90 |
| PARAMETER | | 04-126-6 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | |
| Dilution Factor, Times 1 | | 04/10/90 |
| 1,1,1-Trichloroethane, ug/L | | 1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 |
| 1,1,2-Trichloroethane, ug/L | | <1 |
| 1,1-Dichloroethane, ug/L | | <1 |
| 1,1-Dichloroethene, ug/L | | <1 |
| 1,2-Dichloroethane, ug/L | | <1 |
| 1,2-Dichlorobenzene, ug/L | | <1 |
| 1,2-Dichloropropane, ug/L | | <1 |
| 1,3-Dichlorobenzene, ug/L | | <1 |
| 1,4-Dichlorobenzene, ug/L | | <1 |
| 2-Chloroethylvinylether, ug/L | | <1 |
| Acetone, ug/L | | <10 |
| Acrolein, ug/L | | <20 |
| Acrylonitrile, ug/L | | <20 |
| Bromodichloromethane, ug/L | | <1 |
| Bromomethane, ug/L | | <1 |
| Benzene, ug/L | | <1 |
| Bromoform, ug/L | | <1 |
| Chlorobenzene, ug/L | | <1 |
| Carbon Tetrachloride, ug/L | | <1 |
| Chloroethane, ug/L | | <1 |
| Chloroform, ug/L | | 67 |
| Chloromethane, ug/L | | <2 |
| Dibromochloromethane, ug/L | | <1 |

Analytical Report

REVISED REPORT

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|--|--------------|
| 04-126-6 | MW-19 | 05 APR 90 |
| PARAMETER | 04-126-6 | |
| Ethylbenzene, ug/L | <1 | |
| Methylene chloride, ug/L | <2 | |
| Trichloroethene, ug/L | 25 | |
| Trichlorofluoromethane, ug/L | <1 | |
| Toluene, ug/L | <1 | |
| Tetrachloroethene, ug/L | <1 | |
| Vinyl chloride, ug/L | <1 | |
| cis-1,3-Dichloropropene, ug/L | <1 | |
| trans-1,2-Dichloroethene, ug/L | <1 | |
| trans-1,3-Dichloropropene, ug/L | <1 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |
| Semi-Quantified Results ** | | |
| cis-1,2-Dichloroethylene, ug/L | 1 | |

** Quantification based upon comparison of total ion count of the compound with that of the nearest internal standard.

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Log Number.: 90-04-126-1
Sample Description: MW-22

General Mineral Analysis
Sampled Date 05 APR 90

| Anions | mg/L | meq/L | Determination | mg/L |
|------------------------------------|------|-------|---|-------|
| Nitrate (as N03) | 12 | 0.19 | Hydroxide Alk (as CaCO ₃) | <1 |
| Chloride | 320 | 9 | Carbonate Alk (as CaCO ₃) | <1 |
| Sulfate | 92 | 1.9 | Bicarbonate Alk (as CaCO ₃) | 270 |
| Bicarbonate (as HC0 ₃) | 330 | 5.4 | Ca Hardness (as CaCO ₃) | 210 |
| Carbonate (as CO ₃) | <0.6 | <0.02 | Mg Hardness (as CaCO ₃) | 140 |
| | | | Total Hardness | 350 |
| Total Millequivalents per Liter | | 16.5 | Iron | <0.1 |
| | | | Manganese | <0.01 |
| Cations | mg/L | meq/L | Copper | <0.02 |
| | | | Zinc | <0.03 |
| Sodium | 180 | 7.8 | Surfactants (MBAS) | 0.21 |
| Potassium | 7.7 | 0.2 | Filterable Residue (TDS) | 900 |
| Calcium | 84 | 4.2 | Sp. Conductance, umhos/cm | 1800 |
| Magnesium | 35 | 2.9 | pH, units | 7.3 |
| Total Millequivalents per Liter | | 15.1 | Ion balance in percent | 4.46 |

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Log Number : 90-04-126-2

Sample Description: MW-16

General Mineral Analysis
Sampled Date 05 APR 90

| Anions | mg/L | meq/L | Determination | mg/L |
|------------------------------------|------|-------|---|-------|
| Nitrate (as NO ₃) | 26 | 0.42 | Hydroxide Alk (as CaCO ₃) | <1 |
| Chloride | 340 | 9.6 | Carbonate Alk (as CaCO ₃) | <1 |
| Sulfate | 52 | 1.1 | Bicarbonate Alk (as CaCO ₃) | 220 |
| Bicarbonate (as HC ₀₃) | 270 | 4.4 | Ca Hardness (as CaCO ₃) | 240 |
| Carbonate (as CO ₃) | <0.6 | <0.02 | Mg Hardness (as CaCO ₃) | 150 |
| | | | Total Hardness | 390 |
| Total Millequivalents per Liter | | 15.5 | Iron | <0.1 |
| | | | Manganese | <0.01 |
| Cations | mg/L | meq/L | Copper | <0.02 |
| | | | Zinc | <0.03 |
| Sodium | 110 | 4.8 | Surfactants (MBAS) | <0.05 |
| Potassium | 8.0 | 0.2 | Filterable Residue (TDS) | 910 |
| Calcium | 97 | 4.8 | Sp. Conductance, umhos/cm | 1600 |
| Magnesium | 37 | 3 | pH, units | 7.3 |
| Total Millequivalents per Liter | | 12.8 | Ion balance in percent | 9.66 |

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Log Number : 90-04-126-3
Sample Description: MW-17

General Mineral Analysis
Sampled Date 05 APR 90

| Anions | mg/L | meq/L | Determination | mg/L |
|------------------------------------|------|-------|---|-------|
| Nitrate (as NO ₃) | 2.1 | 0.034 | Hydroxide Alk (as CaCO ₃) | <1 |
| Chloride | 410 | 12 | Carbonate Alk (as CaCO ₃) | <1 |
| Sulfate | 77 | 1.6 | Bicarbonate Alk (as CaCO ₃) | 380 |
| Bicarbonate (as HC ₀₃) | 460 | 7.6 | Ca Hardness (as CaCO ₃) | 370 |
| Carbonate (as CO ₃) | <0.6 | <0.02 | Mg Hardness (as CaCO ₃) | 210 |
| | | | Total Hardness | 580 |
| Total Millequivalents per Liter | | 21.3 | Iron | <0.1 |
| | | | Manganese | 0.44 |
| Cations | mg/L | meq/L | Copper | <0.02 |
| | | | Zinc | 0.04 |
| Sodium | 160 | 7 | Surfactants (MBAS) | <0.05 |
| Potassium | 7.5 | 0.19 | Filterable Residue (TDS) | 1100 |
| Calcium | 150 | 7.5 | Sp. Conductance, umhos/cm | 2000 |
| Magnesium | 51 | 4.2 | pH, units | 7.1 |
| Total Millequivalents per Liter | | 18.9 | Ion balance in percent | 5.88 |

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Log Number : 90-04-126-4
Sample Description: MW-21

General Mineral Analysis
Sampled Date 05 APR 90

| Anions | mg/L | meq/L | Determination | mg/L |
|------------------------------------|------|---------|---|-------|
| Nitrate (as NO ₃) | <0.2 | <0.0032 | Hydroxide Alk (as CaCO ₃) | <1 |
| Chloride | 480 | 14 | Carbonate Alk (as CaCO ₃) | <1 |
| Sulfate | 44 | 0.92 | Bicarbonate Alk (as CaCO ₃) | 620 |
| Bicarbonate (as HC ₀₃) | 760 | 12 | Ca Hardness (as CaCO ₃) | 520 |
| Carbonate (as CO ₃) | <0.6 | <0.02 | Mg Hardness (as CaCO ₃) | 290 |
| | | | Total Hardness | 810 |
| Total Millequivalents per Liter | | 26.9 | Iron | <0.1 |
| | | | Manganese | 0.06 |
| Cations | mg/L | meq/L | Copper | <0.02 |
| | | | Zinc | <0.03 |
| Sodium | 98 | 4.3 | Surfactants (MBAS) | <0.05 |
| Potassium | 9.9 | 0.25 | Filterable Residue (TDS) | 1500 |
| Calcium | 210 | 10 | Sp. Conductance, umhos/cm | 2600 |
| Magnesium | 71 | 5.8 | pH, units | 6.9 |
| Total Millequivalents per Liter | | 20.4 | Ion balance in percent | 13.94 |

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Log Number : 90-04-126-5
Sample Description: MW-18

General Mineral Analysis
Sampled Date 05 APR 90

| Anions | mg/L | meq/L | Determination | mg/L |
|------------------------------------|------|-------|---|-------|
| Nitrate (as NO ₃) | 8.0 | 0.13 | Hydroxide Alk (as CaCO ₃) | <1 |
| Chloride | 93 | 2.6 | Carbonate Alk (as CaCO ₃) | <1 |
| Sulfate | 42 | 0.87 | Bicarbonate Alk (as CaCO ₃) | 180 |
| Bicarbonate (as HC ₀₃) | 220 | 3.6 | Ca Hardness (as CaCO ₃) | 150 |
| Carbonate (as CO ₃) | <0.6 | <0.02 | Mg Hardness (as CaCO ₃) | 58 |
| | | | Total Hardness | 208 |
| Total Millequivalents per Liter | | 7.2 | Iron | <0.1 |
| | | | Manganese | <0.01 |
| Cations | mg/L | meq/L | Copper | <0.02 |
| | | | Zinc | <0.03 |
| Sodium | 48 | 2.1 | Surfactants (MBAS) | <0.05 |
| Potassium | 4.6 | 0.12 | Filterable Residue (TDS) | 430 |
| Calcium | 61 | 3 | Sp. Conductance, umhos/cm | 760 |
| Magnesium | 14 | 1.2 | pH, units | 7.5 |
| Total Millequivalents per Liter | | 6.4 | Ion balance in percent | 5.86 |

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Log Number : 90-04-126-6
Sample Description: MW-19

General Mineral Analysis
Sampled Date 05 APR 90

| Anions | mg/L | meq/L | Determination | mg/L |
|------------------------------------|------|-------|---|-------|
| Nitrate (as NO ₃) | 11 | 0.18 | Hydroxide Alk (as CaCO ₃) | <1 |
| Chloride | 270 | 7.6 | Carbonate Alk (as CaCO ₃) | <1 |
| Sulfate | 29 | 0.6 | Bicarbonate Alk (as CaCO ₃) | 170 |
| Bicarbonate (as HC ₀₃) | 210 | 3.4 | Ca Hardness (as CaCO ₃) | 270 |
| Carbonate (as CO ₃) | <0.6 | <0.02 | Mg Hardness (as CaCO ₃) | 82 |
| | | | Total Hardness | 352 |
| Total Millequivalents per Liter | | 11.8 | Iron | <0.1 |
| | | | Manganese | <0.01 |
| Cations | mg/L | meq/L | Copper | <0.02 |
| | | | Zinc | <0.03 |
| Sodium | 67 | 2.9 | Surfactants (MBAS) | <0.05 |
| Potassium | 8.1 | 0.21 | Filterable Residue (TDS) | 690 |
| Calcium | 110 | 5.5 | Sp. Conductance, umhos/cm | 1300 |
| Magnesium | 20 | 1.6 | pH, units | 7.3 |
| Total Millequivalents per Liter | | 10.2 | Ion balance in percent | 7.22 |

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | |
|---|--|--------------|-----------|
| 04-126-7 | WB-1 | | 05 APR 90 |
| 04-126-8 | MW-2200 | | 05 APR 90 |
| PARAMETER | | 04-126-7 | 04-126-8 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | |
| Date Extracted | | 04/11/90 | 04/11/90 |
| Date Analyzed | | 04/21/90 | 04/21/90 |
| Dilution Factor, Times 1 | | 1 | 1 |
| Total BHC Isomers, ug/L | | <0.04 | <0.04 |
| Total DDT Metabolites, ug/L | | <0.04 | <0.04 |
| p,p'-DDD, ug/L | | <0.04 | <0.04 |
| p,p'-DDE, ug/L | | <0.04 | <0.04 |
| p,p'-DDT, ug/L | | <0.04 | <0.04 |
| o,p'-DDD, ug/L | | <0.04 | <0.04 |
| o,p'-DDE, ug/L | | <0.04 | <0.04 |
| o,p'-DDT, ug/L | | <0.04 | <0.04 |
| BHC, alpha isomer, ug/L | | <0.04 | <0.04 |
| BHC, beta isomer, ug/L | | <0.04 | <0.04 |
| BHC, delta isomer, ug/L | | <0.04 | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | | <0.04 | <0.04 |

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | |
|---------------------------------------|--|--------------|----------|
| PARAMETER | | 04-126-7 | 04-126-8 |
| VOCs Method 624 (SOP MS 00188) | | | |
| Date Analyzed | | 04/10/90 | 04/10/90 |
| Dilution Factor, Times 1 | | 1 | 1 |
| 1,1,1-Trichloroethane, ug/L | | <1 | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 | <1 |
| 1,1,2-Trichloroethane, ug/L | | <1 | 4 |
| 1,1-Dichloroethane, ug/L | | <1 | <1 |
| 1,1-Dichloroethene, ug/L | | <1 | <1 |
| 1,2-Dichloroethane, ug/L | | <1 | <1 |
| 1,2-Dichlorobenzene, ug/L | | <1 | <1 |
| 1,2-Dichloropropane, ug/L | | <1 | <1 |
| 1,3-Dichlorobenzene, ug/L | | <1 | <1 |
| 1,4-Dichlorobenzene, ug/L | | <1 | <1 |
| 2-Chloroethylvinylether, ug/L | | <1 | <1 |
| Acetone, ug/L | | <10 | <10 |
| Acrolein, ug/L | | <20 | <20 |
| Acrylonitrile, ug/L | | <20 | <20 |
| Bromodichloromethane, ug/L | | <1 | <1 |
| Bromomethane, ug/L | | <1 | <1 |
| Benzene, ug/L | | <1 | <1 |
| Bromoform, ug/L | | <1 | <1 |
| Chlorobenzene, ug/L | | <1 | <1 |
| Carbon Tetrachloride, ug/L | | <1 | 1 |
| Chloroethane, ug/L | | <1 | <1 |
| Chloroform, ug/L | | <1 | 47 |
| Chloromethane, ug/L | | <2 | <2 |

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | |
|--------------------------------------|--|--------------|-----------|
| PARAMETER | | 04-126-7 | 04-126-8 |
| 04-126-7 | WB-1 | | 05 APR 90 |
| 04-126-8 | MW-2200 | | 05 APR 90 |
| Dibromochloromethane, ug/L | | <1 | <1 |
| Ethylbenzene, ug/L | | <1 | <1 |
| Methylene chloride, ug/L | | <2 | <2 |
| Trichloroethene, ug/L | | <1 | 6 |
| Trichlorofluoromethane, ug/L | | <1 | <1 |
| Toluene, ug/L | | <1 | 1 |
| Tetrachloroethene, ug/L | | <1 | <1 |
| Vinyl chloride, ug/L | | <1 | <1 |
| cis-1,3-Dichloropropene, ug/L | | <1 | <1 |
| trans-1,2-Dichloroethene, ug/L | | <1 | <1 |
| trans-1,3-Dichloropropene, ug/L | | <1 | <1 |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- |

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|---------------------------------|--|--------------|
| 04-126-9 | TB-1 | 05 APR 90 |
| PARAMETER | | 04-126-9 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/10/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, ug/L | | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 |
| 1,1,2-Trichloroethane, ug/L | | <1 |
| 1,1-Dichloroethane, ug/L | | <1 |
| 1,1-Dichloroethene, ug/L | | <1 |
| 1,2-Dichloroethane, ug/L | | <1 |
| 1,2-Dichlorobenzene, ug/L | | <1 |
| 1,2-Dichloropropane, ug/L | | <1 |
| 1,3-Dichlorobenzene, ug/L | | <1 |
| 1,4-Dichlorobenzene, ug/L | | <1 |
| 2-Chloroethylvinylether, ug/L | | <1 |
| Acetone, ug/L | | <10 |
| Acrolein, ug/L | | <20 |
| Acrylonitrile, ug/L | | <20 |
| Bromodichloromethane, ug/L | | <1 |
| Bromomethane, ug/L | | <1 |
| Benzene, ug/L | | <1 |
| Bromoform, ug/L | | <1 |
| Chlorobenzene, ug/L | | <1 |
| Carbon Tetrachloride, ug/L | | <1 |
| Chloroethane, ug/L | | <1 |
| Chloroform, ug/L | | <1 |
| Chloromethane, ug/L | | <2 |
| Dibromochloromethane, ug/L | | <1 |

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|--|--------------|
| 04-126-9 | TB-1 | 05 APR 90 |
| PARAMETER | 04-126-9 | |
| Ethylbenzene, ug/L | <1 | |
| Methylene chloride, ug/L | <2 | |
| Trichloroethene, ug/L | <1 | |
| Trichlorofluoromethane, ug/L | <1 | |
| Toluene, ug/L | <1 | |
| Tetrachloroethene, ug/L | <1 | |
| Vinyl chloride, ug/L | <1 | |
| cis-1,3-Dichloropropene, ug/L | <1 | |
| trans-1,2-Dichloroethene, ug/L | <1 | |
| trans-1,3-Dichloropropene, ug/L | <1 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

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Log Number : 90-04-126-10

Sample Description: MW-22 (BC/QC DUP)

General Mineral Analysis
Sampled Date 05 APR 90

| Anions | mg/L | meq/L | Determination | mg/L |
|---------------------------------|------|-------|----------------------------|-------|
| Nitrate (as N03) | 12 | 0.19 | Hydroxide Alk (as CaCO3) | <1 |
| Chloride | 320 | 9 | Carbonate Alk (as CaCO3) | <1 |
| Sulfate | 88 | 1.8 | Bicarbonate Alk (as CaCO3) | 260 |
| Bicarbonate (as HCO3) | 320 | 5.2 | Ca Hardness (as CaCO3) | 200 |
| Carbonate (as CO3) | <0.6 | <0.02 | Mg Hardness (as CaCO3) | 140 |
| | | | Total Hardness | 340 |
| Total Millequivalents per Liter | | 16.2 | Iron | <0.1 |
| | | | Manganese | <0.01 |
| Cations | mg/L | meq/L | Copper | <0.02 |
| | | | Zinc | <0.03 |
| Sodium | 180 | 7.8 | Surfactants (MBAS) | 0.21 |
| Potassium | 7.6 | 0.19 | Filterable Residue (TDS) | 900 |
| Calcium | 79 | 3.9 | Sp. Conductance, umhos/cm | 1900 |
| Magnesium | 35 | 2.9 | pH, units | 7.3 |
| Total Millequivalents per Liter | | 14.8 | Ion balance in percent | 4.58 |

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| LOG NO | SAMPLE DESCRIPTION, MATRIX SPIKE SAMPLES | DATE SAMPLED |
|---|--|--------------|
| 04-126-11 | MW-22 (BC/QC SPK) | 05 APR 90 |
| PARAMETER | | 04-126-11 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/11/90 |
| Date Analyzed | | 04/21/90 |
| Dilution Factor, Times 1 | | 1 |
| p,p'-DDT, Percent | | 44 |
| BHC, gamma isomer (Lindane), Percent | | 45 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/10/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1-Dichloroethene, Percent | | 85 |
| Benzene, Percent | | 97 |
| Chlorobenzene, Percent | | 100 |
| Trichloroethene, Percent | | 95 |
| Toluene, Percent | | 95 |
| Other VOCs Method 624 (SOP MS 00188) | | --- |

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3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, MATRIX SPIKE SAMPLES | DATE SAMPLED |
|---|--|--------------|
| 04-126-12 | MW-22 (BC/QC DUP-SPK) | 05 APR 90 |
| PARAMETER | | 04-126-12 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/11/90 |
| Date Analyzed | | 04/21/90 |
| Dilution Factor, Times 1 | | 1 |
| p,p'-DDT, Percent | | 72 |
| BHC, gamma isomer (Lindane), Percent | | 87 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/10/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1-Dichloroethene, Percent | | 81 |
| Benzene, Percent | | 97 |
| Chlorobenzene, Percent | | 99 |
| Trichloroethene, Percent | | 97 |
| Toluene, Percent | | 95 |
| Other VOCs Method 624 (SOP MS 00188) | | --- |

Analytical Report

ANALYTICAL REPORT

LOG NO: G90-04-126

Received: 06 APR 90

Reported: 03 MAY 90

Ms. Lanae Raymond
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 21

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|-------------------------------------|---|--------------|
| 04-126-13 | Laboratory Control Standard | |
| PARAMETER | | 04-126-13 |
| Alkalinity | | |
| All Alkalinity | | --- |
| Calcium, Percent | | 93 |
| Magnesium, Percent | | 95 |
| Chloride, Percent | | 100 |
| Copper, Percent | | 95 |
| Surfactants (MBAS), Percent | | 102 |
| Iron, Percent | | 85 |
| Manganese, Percent | | 90 |
| pH, Units | | NA |
| Potassium, Percent | | 95 |
| Sodium, Percent | | 94 |
| Sulfate, Percent | | 103 |
| Specific Conductance, Percent | | 101 |
| Filterable Residue (TDS), Percent | | 100 |
| Zinc, Percent | | 82 |
| Ion Balance, . | | NA |
| Nitrate Nitrogen, Percent | | 101 |
| General Mineral Filtration, Percent | | 04/17/90 |
| Nitric Acid Digestion, Date | | 04/17/90 |

Analytical Report

REVISED REPORT

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Received: 06 APR 90

Reported: 03 MAY 90

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REPORT OF ANALYTICAL RESULTS

Page 22

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-126-13 | Laboratory Control Standard | |
| PARAMETER | | 04-126-13 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/11/90 |
| Date Analyzed | | 04/21/90 |
| Dilution Factor, Times 1 | | 1 |
| p,p'-DDD, Percent | | 74 |
| p,p'-DDE, Percent | | 74 |
| p,p'-DDT, Percent | | 71 |
| BHC, alpha isomer, Percent | | 70 |
| BHC, beta isomer, Percent | | 78 |
| BHC, delta isomer, Percent | | 72 |
| BHC, gamma isomer (Lindane), Percent | | 74 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- |

Analytical Report

ANALYTICAL REPORT

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REPORT OF ANALYTICAL RESULTS

Page 23

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|------------------------------------|---|--------------|
| 04-126-13 | Laboratory Control Standard | |
| PARAMETER | | 04-126-13 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/10/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, Percent | | 75 |
| 1,1,2,2-Tetrachloroethane, Percent | | 100 |
| 1,1,2-Trichloroethane, Percent | | 120 |
| 1,1-Dichloroethane, Percent | | 80 |
| 1,1-Dichloroethene, Percent | | 76 |
| 1,2-Dichloroethane, Percent | | 100 |
| 1,2-Dichlorobenzene, Percent | | 110 |
| 1,2-Dichloropropane, Percent | | 100 |
| 1,3-Dichlorobenzene, Percent | | 94 |
| 1,4-Dichlorobenzene, Percent | | 100 |
| 2-Chloroethylvinylether, Percent | | 100 |
| Acetone, Percent | | 100 |
| Acrolein, Percent | | 78 |
| Acrylonitrile, Percent | | 84 |
| Bromodichloromethane, Percent | | 92 |
| Bromomethane, Percent | | 79 |
| Benzene, Percent | | 94 |
| Bromoform, Percent | | 90 |
| Chlorobenzene, Percent | | 100 |
| Carbon Tetrachloride, Percent | | 87 |
| Chloroethane, Percent | | 71 |
| Chloroform, Percent | | 92 |
| Chloromethane, Percent | | 72 |
| Dibromochloromethane, Percent | | 100 |

Analytical Report

REVISED REPORT

LOG NO: G90-04-126

Received: 06 APR 90

Reported: 03 MAY 90

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 24

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-126-13 | Laboratory Control Standard | |
| PARAMETER | | 04-126-13 |
| Ethylbenzene, Percent | 87 | |
| Methylene chloride, Percent | 130 | |
| Trichloroethene, Percent | 94 | |
| Trichlorofluoromethane, Percent | 78 | |
| Toluene, Percent | 86 | |
| Tetrachloroethene, Percent | 95 | |
| Vinyl chloride, Percent | 62 | |
| cis-1,3-Dichloropropene, Percent | 82 | |
| trans-1,2-Dichloroethene, Percent | 83 | |
| trans-1,3-Dichloropropene, Percent | 92 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Analytical Report

ANALYTICAL REPORT

LOG NO: G90-04-126

Received: 06 APR 90

Reported: 03 MAY 90

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 25

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|--|---|--------------|
| 04-126-14 | Laboratory Blank | |
| PARAMETER | | 04-126-14 |
| Alkalinity | | |
| Carbonate Alk (as CaCO ₃), mg/L | <1 | |
| Bicarbonate Alk (as CaCO ₃), mg/L | <1 | |
| Hydroxide Alk (as CaCO ₃), mg/L | <1 | |
| Total Alkalinity (as CaCO ₃), mg/L | <10 | |
| Calcium, mg/L | <0.5 | |
| Magnesium, mg/L | <0.1 | |
| Chloride, mg/L | <0.02 | |
| Copper, mg/L | <0.02 | |
| Surfactants (MBAS), mg/L | <0.05 | |
| Iron, mg/L | <0.1 | |
| Manganese, mg/L | <0.01 | |
| pH, Units | NA | |
| Potassium, mg/L | <0.5 | |
| Sodium, mg/L | <0.5 | |
| Sulfate, mg/L | <2 | |
| Specific Conductance, umhos/cm | NA | |
| Filterable Residue (TDS), mg/L | <10 | |
| Zinc, mg/L | <0.03 | |
| Ion Balance, . | NA | |
| Nitrate Nitrogen | | |
| Nitrate (as NO ₃), mg/L | <0.2 | |
| Nitrate (as N), mg/L | <0.05 | |
| General Mineral Filtration, mg/L | 04/17/90 | |
| Nitric Acid Digestion, Date | 04/17/90 | |

Analytical Report

REVISED REPORT

LOG NO: G90-04-126

Received: 06 APR 90

Reported: 03 MAY 90

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 26

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-126-14 | Laboratory Blank | |
| PARAMETER | | 04-126-14 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/11/90 |
| Date Analyzed | | 04/23/90 |
| Dilution Factor, Times 1 | | 1 |
| Total BHC Isomers, ug/L | | <0.04 |
| Total DDT Metabolites, ug/L | | <0.04 |
| p,p'-DDD, ug/L | | <0.04 |
| p,p'-DDE, ug/L | | <0.04 |
| p,p'-DDT, ug/L | | <0.04 |
| o,p'-DDD, ug/L | | <0.04 |
| o,p'-DDE, ug/L | | <0.04 |
| o,p'-DDT, ug/L | | <0.04 |
| BHC, alpha isomer, ug/L | | <0.04 |
| BHC, beta isomer, ug/L | | <0.04 |
| BHC, delta isomer, ug/L | | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | | <0.04 |

Analytical Report

ANALYTICAL REPORT

LOG NO: G90-04-126

Received: 06 APR 90

Reported: 03 MAY 90

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 27

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---------------------------------------|---|--------------|
| 04-126-14 | Laboratory Blank | |
| PARAMETER | | 04-126-14 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/10/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, ug/L | | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 |
| 1,1,2-Trichloroethane, ug/L | | <1 |
| 1,1-Dichloroethane, ug/L | | <1 |
| 1,1-Dichloroethene, ug/L | | <1 |
| 1,2-Dichloroethane, ug/L | | <1 |
| 1,2-Dichlorobenzene, ug/L | | <1 |
| 1,2-Dichloropropane, ug/L | | <1 |
| 1,3-Dichlorobenzene, ug/L | | <1 |
| 1,4-Dichlorobenzene, ug/L | | <1 |
| 2-Chloroethylvinylether, ug/L | | <1 |
| Acetone, ug/L | | <10 |
| Acrolein, ug/L | | <20 |
| Acrylonitrile, ug/L | | <20 |
| Bromodichloromethane, ug/L | | <1 |
| Bromomethane, ug/L | | <1 |
| Benzene, ug/L | | <1 |
| Bromoform, ug/L | | <1 |
| Chlorobenzene, ug/L | | <1 |
| Carbon Tetrachloride, ug/L | | <1 |
| Chloroethane, ug/L | | <1 |
| Chloroform, ug/L | | <1 |
| Chloromethane, ug/L | | <2 |
| Dibromochloromethane, ug/L | | <1 |

Analytical Report

REvised REPORT

LOG NO: G90-04-126

Received: 06 APR 90

Reported: 03 MAY 90

Ms. Lanae Raymond
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 28

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-126-14 | Laboratory Blank | 04-126-14 |
| PARAMETER | | |
| Ethylbenzene, ug/L | <1 | |
| Methylene chloride, ug/L | <2 | |
| Trichloroethene, ug/L | <1 | |
| Trichlorofluoromethane, ug/L | <1 | |
| Toluene, ug/L | <1 | |
| Tetrachloroethene, ug/L | <1 | |
| Vinyl chloride, ug/L | <1 | |
| cis-1,3-Dichloropropene, ug/L | <1 | |
| trans-1,2-Dichloroethene, ug/L | <1 | |
| trans-1,3-Dichloropropene, ug/L | <1 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Amended report, not all sample results were sent out the first time. L. Brack 05/08/90

Amended report, incorrect acetone detection limit reported for sample -4. Also corrected the trichlorofluoromethane detection limit for -1.

L. Brack 05/16/90

Jeffrey A. Erion
Jeffrey A. Erion, Laboratory Manager

Analytical Report

LOG NO: G90-04-148

Received: 09 APR 90
Reported: 27 APR 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 1

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|---|--|----------------------|
| 04-148-1 | MW-20 | 06 APR 90 |
| 04-148-2 | MW-20 (BC/QC DUP) | 06 APR 90 |
| PARAMETER | | 04-148-1 04-148-2 |
| Nitrate Nitrogen | | |
| Nitrate (as N03), mg/L | 3.0 | 3.0 |
| Nitrate (as N), mg/L | 0.68 | 0.68 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | 04/11/90 | --- |
| Date Analyzed | 04/21/90 | --- |
| Dilution Factor, Times 1 | 1 | --- |
| Total BHC Isomers, ug/L | <0.04 | --- |
| Total DDT Metabolites, ug/L | 0.50 | --- |
| p,p'-DDD, ug/L | 0.10 | --- |
| p,p'-DDE, ug/L | <0.04 | --- |
| p,p'-DDT, ug/L | 0.40 | --- |
| o,p'-DDD, ug/L | <0.04 | --- |
| o,p'-DDE, ug/L | <0.04 | --- |
| o,p'-DDT, ug/L | <0.04 | --- |
| BHC, alpha isomer, ug/L | <0.04 | --- |
| BHC, beta isomer, ug/L | <0.04 | --- |
| BHC, delta isomer, ug/L | <0.04 | --- |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | --- |

Analytical Report

LOG NO: G90-04-148

Received: 09 APR 90
Reported: 27 APR 90

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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 2

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|---------------------------------|--|----------------------|
| 04-148-1 | MW-20 | 06 APR 90 |
| 04-148-2 | MW-20 (BC/QC DUP) | 06 APR 90 |
| PARAMETER | | 04-148-1 04-148-2 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/11/90 --- |
| Dilution Factor, Times 1 | | 10000 --- |
| 1,1,1-Trichloroethane, ug/L | | <10000 --- |
| 1,1,2,2-Tetrachloroethane, ug/L | | <10000 --- |
| 1,1,2-Trichloroethane, ug/L | | <10000 --- |
| 1,1-Dichloroethane, ug/L | | <10000 --- |
| 1,1-Dichloroethene, ug/L | | <10000 --- |
| 1,2-Dichloroethane, ug/L | | <10000 --- |
| 1,2-Dichlorobenzene, ug/L | | <10000 --- |
| 1,2-Dichloropropane, ug/L | | <10000 --- |
| 1,3-Dichlorobenzene, ug/L | | <10000 --- |
| 1,4-Dichlorobenzene, ug/L | | <10000 --- |
| 2-Chloroethylvinylether, ug/L | | <10000 --- |
| Acetone, ug/L | | <1000000 --- |
| Acrolein, ug/L | | <200000 --- |
| Acrylonitrile, ug/L | | <200000 --- |
| Bromodichloromethane, ug/L | | <10000 --- |
| Bromomethane, ug/L | | <10000 --- |
| Benzene, ug/L | | 1100000 --- |
| Bromoform, ug/L | | <10000 --- |
| Chlorobenzene, ug/L | | <10000 --- |
| Carbon Tetrachloride, ug/L | | <10000 --- |
| Chloroethane, ug/L | | <10000 --- |
| Chloroform, ug/L | | <10000 --- |
| Chloromethane, ug/L | | <20000 --- |

Analytical Report

LOG NO: G90-04-148

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 3

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|--|----------------------|
| 04-148-1 | MW-20 | 06 APR 90 |
| 04-148-2 | MW-20 (BC/QC DUP) | 06 APR 90 |
| PARAMETER | | 04-148-1 04-148-2 |
| Dibromochloromethane, ug/L | <10000 | --- |
| Ethylbenzene, ug/L | <10000 | --- |
| Methylene chloride, ug/L | <20000 | --- |
| Trichloroethene, ug/L | <10000 | --- |
| Trichlorofluoromethane, ug/L | <10000 | --- |
| Toluene, ug/L | <10000 | --- |
| Tetrachloroethene, ug/L | <10000 | --- |
| Vinyl chloride, ug/L | <10000 | --- |
| cis-1,3-Dichloropropene, ug/L | <10000 | --- |
| trans-1,2-Dichloroethene, ug/L | <10000 | --- |
| trans-1,3-Dichloropropene, ug/L | <10000 | --- |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- |

Analytical Report

LOG NO: G90-04-148

Received: 09 APR 90
Reported: 27 APR 90

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 4

| LOG NO | SAMPLE DESCRIPTION, MATRIX SPIKE SAMPLES | DATE SAMPLED | |
|--------------------------------------|--|--------------|-----------|
| 04-148-3 | MW-20 (BC/QC SPK) | | 06 APR 90 |
| 04-148-4 | MW-20 (BC/QC DUP-SPK) | | 06 APR 90 |
| PARAMETER | | 04-148-3 | 04-148-4 |
| Nitrate Nitrogen, Percent | | 103 | --- |
| VOCs Method 624 (SOP MS 00188) | | | |
| Date Analyzed | | 04/11/90 | 04/11/90 |
| Dilution Factor, Times 1 | | 10000 | 10000 |
| 1,1-Dichloroethene, Percent | | 88 | 92 |
| Benzene, Percent | | 98 | 94 |
| Chlorobenzene, Percent | | 99 | 100 |
| Trichloroethene, Percent | | 99 | 100 |
| Toluene, Percent | | 100 | 100 |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- |

Analytical Report

LOG NO: G90-04-148

Received: 09 APR 90

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-148-5 | Laboratory Control Standard | |
| PARAMETER | | 04-148-5 |
| Nitrate Nitrogen, Percent | 100 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | 04/11/90 | |
| Date Analyzed | 04/21/90 | |
| Dilution Factor, Times 1 | 1 | |
| p,p'-DDD, Percent | 74 | |
| p,p'-DDE, Percent | 74 | |
| p,p''-DDT, Percent | 71 | |
| BHC, alpha isomer, Percent | 70 | |
| BHC, beta isomer, Percent | 78 | |
| BHC, delta isomer, Percent | 72 | |
| BHC, gamma isomer (Lindane), Percent | 74 | |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | --- | |

Analytical Report

LOG NO: G90-04-148

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|------------------------------------|---|--------------|
| 04-148-5 | Laboratory Control Standard | |
| PARAMETER | | 04-148-5 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/11/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, Percent | | 89 |
| 1,1,2,2-Tetrachloroethane, Percent | | 74 |
| 1,1,2-Trichloroethane, Percent | | 140 |
| 1,1-Dichloroethane, Percent | | 96 |
| 1,1-Dichloroethene, Percent | | 90 |
| 1,2-Dichloroethane, Percent | | 100 |
| 1,2-Dichlorobenzene, Percent | | 130 |
| 1,2-Dichloropropane, Percent | | 100 |
| 1,3-Dichlorobenzene, Percent | | 110 |
| 1,4-Dichlorobenzene, Percent | | 110 |
| 2-Chloroethylvinylether, Percent | | 130 |
| Acetone, Percent | | 60 |
| Acrolein, Percent | | 1 |
| Acrylonitrile, Percent | | 82 |
| Bromodichloromethane, Percent | | 120 |
| Bromomethane, Percent | | 94 |
| Benzene, Percent | | 92 |
| Bromoform, Percent | | 100 |
| Chlorobenzene, Percent | | 99 |
| Carbon Tetrachloride, Percent | | 100 |
| Chloroethane, Percent | | 80 |
| Chloroform, Percent | | 100 |
| Chloromethane, Percent | | 76 |
| Dibromochloromethane, Percent | | 140 |

Analytical Report

LOG NO: G90-04-148

Received: 09 APR 90
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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-148-5 | Laboratory Control Standard | 04-148-5 |
| PARAMETER | | |
| Ethylbenzene, Percent | 89 | |
| Methylene chloride, Percent | 110 | |
| Trichloroethene, Percent | 120 | |
| Trichlorofluoromethane, Percent | 110 | |
| Toluene, Percent | 110 | |
| Tetrachloroethene, Percent | 120 | |
| Vinyl chloride, Percent | 73 | |
| cis-1,3-Dichloropropene, Percent | 110 | |
| trans-1,2-Dichloroethene, Percent | 70 | |
| trans-1,3-Dichloropropene, Percent | 140 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Analytical Report

LOG NO: G90-04-148

Received: 09 APR 90
Reported: 27 APR 90

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REPORT OF ANALYTICAL RESULTS

Page 8

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-148-6 | Laboratory Blank | |
| PARAMETER | | 04-148-6 |
| Nitrate Nitrogen | | |
| Nitrate (as NO ₃), mg/L | <0.2 | |
| Nitrate (as N), mg/L | <0.05 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/11/90 |
| Date Analyzed | | 04/21/90 |
| Dilution Factor, Times 1 | | 1 |
| Total BHC Isomers, ug/L | <0.04 | |
| Total DDT Metabolites, ug/L | <0.04 | |
| p,p'-DDD, ug/L | <0.04 | |
| p,p'-DDE, ug/L | <0.04 | |
| p,p'-DDT, ug/L | <0.04 | |
| o,p'-DDD, ug/L | <0.04 | |
| o,p'-DDE, ug/L | <0.04 | |
| o,p'-DDT, ug/L | <0.04 | |
| BHC, alpha isomer, ug/L | <0.04 | |
| BHC, beta isomer, ug/L | <0.04 | |
| BHC, delta isomer, ug/L | <0.04 | |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | |

Analytical Report

LOG NO: G90-04-148

Received: 09 APR 90
Reported: 27 APR 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 9

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---------------------------------|---|--------------|
| 04-148-6 | Laboratory Blank | |
| PARAMETER | | 04-148-6 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/11/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, ug/L | | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 |
| 1,1,2-Trichloroethane, ug/L | | <1 |
| 1,1-Dichloroethane, ug/L | | <1 |
| 1,1-Dichloroethene, ug/L | | <1 |
| 1,2-Dichloroethane, ug/L | | <1 |
| 1,2-Dichlorobenzene, ug/L | | <1 |
| 1,2-Dichloropropane, ug/L | | <1 |
| 1,3-Dichlorobenzene, ug/L | | <1 |
| 1,4-Dichlorobenzene, ug/L | | <1 |
| 2-Chloroethylvinylether, ug/L | | <1 |
| Acetone, ug/L | | <10 |
| Acrolein, ug/L | | <20 |
| Acrylonitrile, ug/L | | <20 |
| Bromodichloromethane, ug/L | | <1 |
| Bromomethane, ug/L | | <1 |
| Benzene, ug/L | | <1 |
| Bromoform, ug/L | | <1 |
| Chlorobenzene, ug/L | | <1 |
| Carbon Tetrachloride, ug/L | | <1 |
| Chloroethane, ug/L | | <1 |
| Chloroform, ug/L | | <1 |
| Chloromethane, ug/L | | <2 |
| Dibromochloromethane, ug/L | | <1 |

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Ms. Lanae Raymond
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Tucson, Arizona 85719

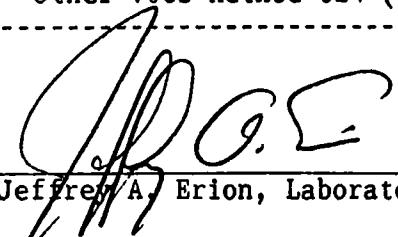
CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 10

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---------------------------------------|---|--------------|
| 04-148-6 | Laboratory Blank | 04-148-6 |
| PARAMETER | | |
| Ethylbenzene, ug/L | <1 | |
| Methylene chloride, ug/L | <2 | |
| Trichloroethene, ug/L | <1 | |
| Trichlorofluoromethane, ug/L | <1 | |
| Toluene, ug/L | <1 | |
| Tetrachloroethene, ug/L | <1 | |
| Vinyl chloride, ug/L | <1 | |
| cis-1,3-Dichloropropene, ug/L | <1 | |
| trans-1,2-Dichloroethene, ug/L | <1 | |
| trans-1,3-Dichloropropene, ug/L | <1 | |
| Other VOCs Method 624 (SOP' MS 00188) | --- | |


Jeffrey A. Erion, Laboratory Manager

Appendix C



HARGIS + ASSOCIATES, INC.

APPENDIX C

ANALYTICAL TECHNOLOGIES, INC. RAW ANALYTICAL DATA
FOR SPLIT SAMPLES, FROM INITIAL GROUNDWATER SAMPLING ROUND,
APRIL 5-6, 1990



HARGIS + ASSOCIATES, INC.

APPENDIX C

TABLE OF CONTENTS

REPORT LOG NO: 004081



Analytical Technologies, Inc.

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004081

DATE RECEIVED : 04/06/90

REPORT DATE : 05/22/90

| ATI # | CLIENT DESCRIPTION | MATRIX | DATE COLLECTED |
|-------|--------------------|--------|----------------|
| 01 | MW-22 | WATER | 04/05/90 |

----- TOTALS -----

| MATRIX | # SAMPLES |
|--------|-----------|
| ----- | ----- |
| WATER | 1 |

----- ATI STANDARD DISPOSAL PRACTICE -----

The samples from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 00408101

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : MW-22
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/05/90
DATE RECEIVED : 04/06/90
DATE EXTRACTED : 04/11/90
DATE ANALYZED : 05/05/90
UNITS : UG/L
DILUTION FACTOR : 1

| COMPOUNDS | RESULTS |
|---------------------|---------|
| ALDRIN | <0.060 |
| ALPHA - BHC | <0.012 |
| BETA - BHC | <0.012 |
| GAMMA-BHC (LINDANE) | <0.012 |
| DELTA - BHC | <0.012 |
| CHLORDANE | <0.60 |
| P,P'-DDD | <0.024 |
| P,P'-DDE | <0.024 |
| P,P'-DDT | <0.024 |
| DIELDRIN | <0.12 |
| ENDOSULFAN I | <0.060 |
| ENDOSULFAN II | <0.12 |
| ENDOSULFAN SULFATE | <0.12 |
| ENDRIN | <0.12 |
| ENDRIN KETONE | <0.12 |
| HEPTACHLOR | <0.060 |
| HEPTACHLOR EPOXIDE | <0.060 |
| TOXAPHENE | <1.2 |
| METHOXYCHLOR | <0.60 |
| AROCLOR 1016 | <0.60 |
| AROCLOR 1221 | <0.60 |
| AROCLOR 1232 | <0.60 |
| AROCLOR 1242 | <0.60 |
| AROCLOR 1248 | <0.60 |
| AROCLOR 1254 | <0.60 |
| AROCLOR 1260 | <0.60 |
| O,P'-DDD | <0.024 |
| O,P'-DDE | <0.024 |
| O,P'-DDT | <0.024 |
| TOTAL BHC | <0.012 |
| TOTAL DDT | <0.024 |

SURROGATE PERCENT RECOVERIES

DBC (%)

87



Analytical Technologies, INC. GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

| | | | | | |
|--------------|---|------------------------|-----------------|---|----------|
| CLIENT | : | HARGIS & ASSOC.-TUCSON | ATI I.D. | : | 004081 |
| PROJECT # | : | 218.2 | DATE EXTRACTED | : | 04/11/90 |
| PROJECT NAME | : | MONTROSE | DATE ANALYZED | : | 05/05/90 |
| CLIENT I.D. | : | REAGENT BLANK | UNITS | : | UG/L |
| | | | DILUTION FACTOR | : | N/A |

| COMPOUNDS | RESULTS |
|---------------------|---------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | <0.010 |
| DELTA - BHC | <0.010 |
| CHLORDANE | <0.50 |
| P, P'-DDD | <0.020 |
| P, P'-DDE | <0.020 |
| P, P'-DDT | <0.020 |
| DIELDRIN | <0.10 |
| ENDOSULFAN I | <0.050 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.10 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <0.050 |
| TOXAPHENE | <1.0 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.50 |
| O, P'-DDD | <0.020 |
| O, P'-DDE | <0.020 |
| O, P'-DDT | <0.020 |
| TOTAL BHC | <0.010 |
| TOTAL DDT | <0.020 |

SURROGATE PERCENT RECOVERIES

DBC (%)

116



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D.

: 004081

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
REF I.D. : 00408101

DATE EXTRACTED : 04/11/90
DATE ANALYZED : 05/05/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | RESULT SPIKED | DUP. | DUP. | RPD | | |
|------------|--------------|---------------|----------------------|---------------|------|----|----|
| | | | % SPIKED SAMPLE REC. | % SAMPLE REC. | | | |
| LINDANE | <0.012 | 0.20 | 0.15 | 75 | 0.14 | 70 | 7 |
| HEPTACHLOR | <0.060 | 0.20 | 0.14 | 70 | 0.14 | 70 | 0 |
| ALDRIN | <0.060 | 0.20 | 0.14 | 70 | 0.14 | 70 | 0 |
| DIELDRIN | <0.12 | 0.49 | 0.40 | 82 | 0.43 | 88 | 7 |
| ENDRIN | <0.12 | 0.49 | 0.38 | 78 | 0.43 | 88 | 12 |
| 4,4' DDT | <0.024 | 0.49 | 0.47 | 96 | 0.47 | 96 | 0 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample} - \text{Duplicate Spike})}{\text{Average of Spiked Sample}} \times 100$$



GCMS - RESULTS

ATI I.D. : 00408101

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : MW-22
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/05/90
DATE RECEIVED : 04/06/90
DATE EXTRACTED : N/A
DATE ANALYZED : 04/09/90
UNITS : UG/L
DILUTION FACTOR : 1

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <10 |
| BROMOMETHANE | <10 |
| VINYL CHLORIDE | <1 |
| CHLOROETHANE | <1 |
| METHYLENE CHLORIDE | <5 |
| ACETONE | <10 |
| CARBON DISULFIDE | <1 |
| 1,1-DICHLOROETHENE | <1 |
| 1,1-DICHLOROETHANE | <1 |
| TRANS-1,2-DICHLOROETHENE | <1 |
| CIS-1,2-DICHLOROETHENE | <1 |
| CHLOROFORM | 55 |
| 1,2-DICHLOROETHANE | <1 |
| 2-BUTANONE (MEK) | <10 |
| 1,1,1-TRICHLOROETHANE | <1 |
| CARBON TETRACHLORIDE | 1 |
| VINYL ACETATE | <10 |
| BROMODICHLOROMETHANE | <1 |
| 1,1,2,2-TETRACHLOROETHANE | <1 |
| 1,2-DICHLOROPROPANE | <1 |
| CIS-1,3-DICHLOROPROPENE | <1 |
| TRICHLOROETHENE | 7 |
| DIBROMOCHLOROMETHANE | <1 |
| 1,1,2-TRICHLOROETHANE | 4 |
| BENZENE | <1 |
| TRANS-1,3-DICHLOROPROPENE | <1 |
| BROMOFORM | <5 |
| 2-HEXANONE (MBK) | <10 |
| 4-METHYL-2-PENTANONE (MIBK) | <10 |
| TETRACHLOROETHENE | <1 |
| TOLUENE | <1 |
| CHLOROBENZENE | <1 |
| ETHYL BENZENE | <1 |
| STYRENE | <1 |
| TOTAL XYLENES | <1 |
| DICHLOROBENZENES | <5 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|-----|
| 1,2-DICHLOROETHANE-D4 (%) | 98 |
| BFB (%) | 100 |
| TOLUENE-D8 (%) | 99 |



Analytical Technologies, Inc.

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

ATI I.D. : 00408101

MATRIX : WATER

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004081
DATE EXTRACTED : N/A
DATE ANALYZED : 04/09/90
UNITS : UG/L
DILUTION FACTOR : N/A

COMPOUNDS

RESULTS

| | |
|-----------------------------|-----|
| CHLOROMETHANE | <10 |
| BROMOMETHANE | <10 |
| VINYL CHLORIDE | <1 |
| CHLOROETHANE | <1 |
| METHYLENE CHLORIDE | <5 |
| ACETONE | <10 |
| CARBON DISULFIDE | <1 |
| 1,1-DICHLOROETHENE | <1 |
| 1,1-DICHLOROETHANE | <1 |
| TRANS-1,2-DICHLOROETHENE | <1 |
| CIS-1,2-DICHLOROETHENE | <1 |
| CHLOROFORM | <1 |
| 1,2-DICHLOROETHANE | <1 |
| 2-BUTANONE (MEK) | <10 |
| 1,1,1-TRICHLOROETHANE | <1 |
| CARBON TETRACHLORIDE | <1 |
| VINYL ACETATE | <10 |
| BROMODICHLOROMETHANE | <1 |
| 1,1,2,2-TETRACHLOROETHANE | <1 |
| 1,2-DICHLOROPROPANE | <1 |
| CIS-1,3-DICHLOROPROPENE | <1 |
| TRICHLOROETHENE | <1 |
| DIBROMOCHLOROMETHANE | <1 |
| 1,1,2-TRICHLOROETHANE | <1 |
| BENZENE | <1 |
| TRANS-1,3-DICHLOROPROPENE | <1 |
| BROMOFORM | <5 |
| 2-HEXANONE (MBK) | <10 |
| 4-METHYL-2-PENTANONE (MIBK) | <10 |
| TETRACHLOROETHENE | <1 |
| TOLUENE | <1 |
| CHLOROBENZENE | <1 |
| ETHYL BENZENE | <1 |
| STYRENE | <1 |
| TOTAL XYLENES | <1 |
| DICHLOROBENZENES | <5 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|-----|
| 1,2-DICHLOROETHANE-D4 (%) | 108 |
| BFB (%) | 106 |
| TOLUENE-D8 (%) | 102 |



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON

ATI I.D. : 004081

UNITS : UG/L

COMPOUNDS

RESULTS

139 METHYLPROPANE

80



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004081

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
REF I.D. : 00408101

DATE EXTRACTED : N/A
DATE ANALYZED : 04/09/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE RESULT | CONC. SPIKED SAMPLE | DUP. | DUP. | RPD |
|--------------------|---------------|---------------------|---------------|---------------|-------|
| | | | % SPIKED REC. | % SAMPLE REC. | |
| 1,1-DICHLOROETHENE | <1 | 40 | 39 | 98 38 | 95 3 |
| TRICHLOROETHENE | <1 | 55 | 61 | 111 60 | 109 2 |
| CHLOROBENZENE | <1 | 53 | 54 | 102 53 | 100 2 |
| TOLUENE | <2 | 54 | 55 | 102 54 | 100 2 |
| BENZENE | <1 | 50 | 49 | 98 48 | 96 2 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 004081

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE

DATE RECEIVED : 04/06/90
REPORT DATE : 05/22/90

PARAMETER UNITS 01

PH UNITS 7.28



Analytical Technologies GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004081

| PARAMETER | UNITS | SAMPLE | DUP. | SPIKED | SPIKE | % | | |
|-----------|-------|----------|--------|--------|-------|-------------|-----|-----|
| | | ATI I.D. | RESULT | RESULT | RPD | SAMPLE CONC | REC | |
| PH | UNITS | 00408101 | 7.28 | 7.21 | 1 | N/A | N/A | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Appendix D



HARGIS + ASSOCIATES, INC.

APPENDIX D

SAMPLE IDENTIFICATION AND CROSS REFERENCE TABLES
INITIAL GROUNDWATER SAMPLING ROUND FOR
WELLS MW-16 THROUGH MW-22 AND ANNUAL GROUNDWATER
SAMPLING ROUND, APRIL 16-21, 1990



APPENDIX D

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- D-1 MONTROSE MONITOR WELL SAMPLE IDENTIFICATION VERSUS BROWN AND CALDWELL LOG NUMBER
- D-2 FIELD DUPLICATE SAMPLE IDENTIFICATION VERSUS BROWN AND CALDWELL LOG NUMBER
- D-3 FIELD BLANK SAMPLE IDENTIFICATION VERSUS BROWN AND CALDWELL LOG NUMBER
- D-4 TRIP BLANK SAMPLE IDENTIFICATION VERSUS BROWN AND CALDWELL LOG NUMBER
- D-5 BROWN AND CALDWELL LABORATORY QUALITY CONTROL SAMPLE IDENTIFICATION
- D-6 LABORATORY SPLIT SAMPLE IDENTIFICATION VERSUS ANALYTICAL TECHNOLOGIES, INC. LOG NUMBER
- D-7 TRIP BLANK SAMPLE IDENTIFICATION VERSUS ANALYTICAL TECHNOLOGIES, INC. LOG NUMBER
- D-8 ANALYTICAL TECHNOLOGIES, INC. LABORATORY QUALITY CONTROL SAMPLE IDENTIFICATION

TABLE D-1

MONTROSE MONITOR WELL
SAMPLE IDENTIFICATION
VERSUS BROWN AND CALDWELL LOG NUMBER

| <u>MONTROSE MONITOR WELL SAMPLE ID</u> | <u>DATE SAMPLED</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|--|-------------------------|--|
| MW-1 | 04-20-90 | G90-04-463-17 |
| MW-3 | 04-20-90 | G90-04-463-9 |
| MW-4 | 04-20-90 | G90-04-463-14 |
| MW-5 | 04-21-90 | G90-04-464-8 |
| MW-6 | 04-20-90 | G90-04-463-15 |
| MW-7 | 04-20-90 | G90-04-463-16 |
| MW-8 | 04-20-90 | G90-04-463-5 |
| MW-9 | 04-20-90 | G90-04-463-6 |
| MW-10 | 04-20-90 | G90-04-463-10 |
| MW-11 | 04-18-90 | G90-04-406-7 |
| MW-12 | 04-18-90 | G90-04-406-1 |
| MW-13 | 04-21-90 | G90-04-464-5 |
| MW-14 | 04-17-90 | G90-04-368-9 |
| MW-15 | 04-18-90 | G90-04-406-13 |
| MW-16 | 04-16-90 | G90-04-320-2 |
| MW-17 | 04-16-90 | G90-04-320-5 |
| MW-18 | 04-20-90 | G90-04-463-1 |
| MW-19 | 04-20-90 | G90-04-463-4 |
| MW-22 | 04-19-90 | G90-04-440-3 |
| MW-23 | 04-18-90 | G90-04-406-15 |
| MW-24 | 04-17-90 | G90-04-368-3 |
| MW-25 | 04-17-90 | G90-04-368-12 |
| MW-26 | 04-17-90 | G90-04-368-13 |
| BF-1 | 04-18-90 | G90-04-406-10 |
| BF-2 | 04-20-90 | G90-04-463-11 |
| BF-3 | 04-20-90 | G90-04-463-12 |



HARGIS + ASSOCIATES, INC.

TABLE D-1 (continued)
 MONTROSE MONITOR WELL SAMPLE
 IDENTIFICATION VERSUS BROWN AND
 CALDWELL LOG NUMBER

Page 2

| <u>MONTROSE MONITOR WELL SAMPLE ID</u> | <u>DATE SAMPLED</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|--|-------------------------|--|
| BF-4 | 04-20-90 | G90-04-463-7 |
| BF-5 | 04-18-90 | G90-04-406-5 |
| BF-6 | 04-21-90 | G90-04-464-4 |
| BF-7 | 04-17-90 | G90-04-368-8 |
| BF-8 | 04-18-90 | G90-04-406-11 |
| BF-9 | 04-19-90 | G90-04-440-11 |
| BF-10 | 04-18-90 | G90-04-406-9 |
| BF-11 | 04-17-90 | G90-04-368-6 |
| BF-12 | 04-19-90 | G90-04-440-5 |
| BF-13 | 04-19-90 | G90-04-440-1 |
| BF-14 | 04-17-90 | G90-04-406-16 |
| BF-15 | 04-17-90 | G90-04-368-4 |
| BF-16 | 04-17-90 | G90-04-368-11 |
| BF-17 | 04-19-90 | G90-04-440-4 |
| | | |
| G-1 | 04-20-90 | G90-04-463-13 |
| G-2 | 04-21-90 | G90-04-464-7 |
| G-3 | 04-19-90 | G90-04-440-13 |
| G-4 | 04-18-90 | G90-04-406-6 |
| G-5 | 04-21-90 | G90-04-464-1 |
| G-6 | 04-18-90 | G90-04-406-14 |
| G-7 | 04-18-90 | G90-04-406-12 |
| G-8 | 04-17-90 | G90-04-368-1 |
| G-9 | 04-18-90 | G90-04-406-8 |
| G-11 | 04-19-90 | G90-04-440-2 |
| G-12 | 04-19-90 | G90-04-440-6 |



HARGIS + ASSOCIATES, INC.

TABLE D-1 (continued)
MONTROSE MONITOR WELL SAMPLE
IDENTIFICATION VERSUS BROWN AND
CALDWELL LOG NUMBER

Page 3

| <u>MONTROSE MONITOR WELL SAMPLE ID</u> | <u>DATE SAMPLED</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|--|-------------------------|--|
| G-13 | 04-19-90 | G90-04-440-12 |
| LG-2 | 04-19-90 | G90-04-440-10 |
| LW-1 | 04-19-90 | G90-04-440-7 |
| LW-2 | 04-21-90 | G90-04-464-6 |
| LW-3 | 04-20-90 | G90-04-463-8 |



HARGIS + ASSOCIATES, INC.

TABLE D-2
FIELD DUPLICATE SAMPLE IDENTIFICATION
VERSUS BROWN AND CALDWELL LOG NUMBER

| <u>FIELD DUPLICATE SAMPLE ID</u> | <u>DATE SAMPLED</u> | <u>PRIMARY SAMPLE ID</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|--|-------------------------|------------------------------|--|
| MW-1600 | 04-16-90 | MW-16 | G90-04-320-3 |
| BF-1100 | 04-17-90 | BF-11 | G90-04-368-7 |
| MW-1200 | 04-18-90 | MW-12 | G90-04-406-2 |
| LW-100 | 04-19-90 | LW-1 | G90-04-440-8 |
| MW-1800 | 04-20-90 | MW-18 | G90-04-463-2 |
| G-500 | 04-21-90 | G-5 | G90-04-464-2 |



HARGIS + ASSOCIATES, INC.

TABLE D-3
FIELD BLANK SAMPLE IDENTIFICATION
VERSUS BROWN AND CALDWELL LOG NUMBER

| <u>DATE</u> | <u>FIELD BLANK SAMPLE ID</u> | <u>SAMPLE PREPARATION LOCATION</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|-------------|----------------------------------|--|--|
| 04-16-90 | WB-1 | MW-16 | G90-04-320-4 |
| 04-17-90 | WB-1 | BF-11 | G90-04-368-5 |
| 04-18-90 | WB-1 | MW-12 | G90-04-406-3 |
| 04-19-90 | WB-1 | LW-1 | G90-04-440-9 |
| 04-20-90 | WB-1 | MW-18 | G90-04-463-3 |
| 04-21-90 | WB-1 | G-5 | G90-04-464-3 |



HARGIS + ASSOCIATES, INC.

TABLE D-4
TRIP BLANK SAMPLE IDENTIFICATION
VERSUS BROWN AND CALDWELL LOG NUMBER

| <u>DATE SAMPLED</u> | <u>TRIP BLANK SAMPLE ID</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|-------------------------|---------------------------------|--|
| 04-16-90 | TB-1 | G90-04-320-1 |
| 04-17-90 | TB-1 | G90-04-368-2 |
| 04-17-90 | TB-2 | G90-04-368-10 |
| 04-18-90 | TB-1 | G90-04-406-4 |
| 04-19-90 | TB-2 | G90-04-440-14 |
| 04-20-90 | TB-1 | G90-04-463-18 |
| 04-20-90 | TB-2 | G90-04-463-19 |
| 04-21-90 | TB-1 | G90-04-464-9 |



HARGIS + ASSOCIATES, INC.

TABLE D-5

BROWN AND CALDWELL
 LABORATORY QUALITY CONTROL
 SAMPLE IDENTIFICATION

| <u>BROWN AND CALDWELL SAMPLE ID</u> | <u>BROWN AND CALDWELL LOG NUMBER</u> |
|---|--|
| MW-16 BC/QC Spike | G90-04-320-6 |
| MW-16 BC/QC Duplicate Spike | G90-04-320-7 |
| Laboratory Control Standard | G90-04-320-8 |
| Laboratory Blank | G90-04-320-9 |
| BF-11 BC/QC Spike | G90-04-368-14 |
| BF-11 BC/QC Duplicate Spike | G90-04-368-15 |
| Laboratory Control Standard | G90-04-368-16 |
| Laboratory Blank | G90-04-368-17 |
| MW-12 BC/QC Spike | G90-04-406-17 |
| MW-12 BC/QC Duplicate Spike | G90-04-406-18 |
| Laboratory Control Standard | G90-04-406-20 |
| Laboratory Blank | G90-04-406-21 |
| LW-1 BC/QC Spike | G90-04-440-15 |
| LW-1 BC/QC Duplicate Spike | G90-04-440-16 |
| Laboratory Blank | G90-04-440-17 |
| Laboratory Control Standard | G90-04-440-18 |
| MW-18 BC/QC Spike | G90-04-463-20 |
| MW-18 BC/QC Duplicate Spike | G90-04-463-21 |
| Laboratory Control Standard | G90-04-463-22 |
| Laboratory Blank | G90-04-463-23 |
| G-5 BC/QC Spike | G90-04-464-10 |
| G-5 BC/QC Duplicate Spike | G90-04-464-11 |
| Laboratory Control Standard | G90-04-464-12 |
| Laboratory Blank | G90-04-464-13 |



HARGIS + ASSOCIATES, INC.

TABLE D-6
LABORATORY SPLIT SAMPLE IDENTIFICATION
VERSUS ANALYTICAL TECHNOLOGIES, INC. LOG NUMBER

| <u>LABORATORY SPLIT SAMPLE ID</u> | <u>DATE SAMPLED</u> | <u>ANALYTICAL TECHNOLOGIES, INC. LOG NUMBER</u> |
|---------------------------------------|-------------------------|---|
| MW-16 | 04-16-90 | 004207-01 |
| BF-11 | 04-17-90 | 004228-01 |
| MW-12 | 04-18-90 | 004253-01 |
| LW-1 | 04-19-90 | 004265-01 |
| MW-18 | 04-20-90 | 004276-01 |
| G-5 | 04-21-90 | 004283-01 |



HARGIS + ASSOCIATES, INC.

TABLE D-7
TRIP BLANK SAMPLE IDENTIFICATION
VERSUS ANALYTICAL TECHNOLOGIES, INC.
SAMPLE LOG NUMBER

| <u>DATE SAMPLED</u> | <u>TRIP BLANK SAMPLE ID</u> | <u>ANALYTICAL TECHNOLOGIES, INC. LOG NUMBER</u> |
|-------------------------|---------------------------------|---|
| 04-19-90 | Trip Blank | 004265-02 |



HARGIS + ASSOCIATES, INC.

TABLE D-8

ANALYTICAL TECHNOLOGIES, INC.
LABORATORY QUALITY CONTROL
SAMPLE IDENTIFICATION

| <u>ANALYTICAL TECHNOLOGIES, INC. SAMPLE ID</u> | <u>ANALYTICAL METHOD</u> | <u>DATE ANALYZED</u> | <u>ANALYTICAL TECHNOLOGIES, INC. LAB NUMBER</u> |
|--|------------------------------|--------------------------|---|
| Reagent Blank | 608 | 05-05-90 | 004207 |
| Spike | 608 | 05-05-90 | 004207 |
| Duplicate Spike | 608 | 05-05-90 | 004207 |
| Reagent Blank | 624 | 04-19-90 | 004207 |
| Spike | 624 | 04-20-90 | 004207 |
| Duplicate Spike | 624 | 04-20-90 | 004207 |
| Reagent Blank | 608 | 05-05-90 | 004228 |
| Spike | 608 | 05-05-90 | 004228 |
| Duplicate Spike | 608 | 05-05-90 | 004228 |
| Reagent Blank | 624 | 04-20-90 | 004228 |
| Spike | 624 | 04-20-90 | 004228 |
| Duplicate Spike | 624 | 04-20-90 | 004228 |
| Reagent Blank | 608 | 05-05-90 | 004253 |
| Spike | 608 | 05-05-90 | 004253 |
| Duplicate Spike | 608 | 05-05-90 | 004253 |
| Reagent Blank | 624 | 04-20-90 | 004253 |
| Spike | 624 | 04-20-90 | 004253 |
| Duplicate Spike | 624 | 04-20-90 | 004253 |
| Reagent Blank | 608 | 05-05-90 | 004265 |
| Spike | 608 | 05-06-90 | 004265 |
| Duplicate Spike | 608 | 05-06-90 | 004265 |
| Reagent Blank | 624 | 04-23-90 | 004265 |
| Spike | 624 | 04-20-90 | 004265 |
| Duplicate Spike | 624 | 04-20-90 | 004265 |
| Reagent Blank | 624 | 04-24-90 | 004265 |
| Spike | 624 | 04-20-90 | 004265 |
| Duplicate Spike | 624 | 04-20-90 | 004265 |



HARGIS + ASSOCIATES, INC.

TABLE D-8 (continued)
 ANALYTICAL TECHNOLOGIES, INC.
 LABORATORY QUALITY CONTROL
 SAMPLE IDENTIFICATION
 Page 2

| <u>ANALYTICAL TECHNOLOGIES, INC. SAMPLE ID</u> | <u>ANALYTICAL METHOD</u> | <u>DATE ANALYZED</u> | <u>ANALYTICAL TECHNOLOGIES, INC. LAB NUMBER</u> |
|--|------------------------------|--------------------------|---|
| Reagent Blank | 608 | 05-05-90 | 004276 |
| Spike | 608 | 05-06-90 | 004276 |
| Duplicate Spike | 608 | 05-06-90 | 004276 |
| Reagent Blank | 624 | 04-27-90 | 004276 |
| Spike | 624 | 04-27-90 | 004276 |
| Duplicate Spike | 624 | 04-27-90 | 004276 |
| Reagent Blank | 608 | 05-05-90 | 004283 |
| Spike | 608 | 05-06-90 | 004283 |
| Duplicate Spike | 608 | 05-06-90 | 004283 |
| Reagent Blank | 624 | 04-24-90 | 004283 |
| Spike | 624 | 04-27-90 | 004283 |
| Duplicate Spike | 624 | 04-27-90 | 004283 |



HARGIS + ASSOCIATES, INC.

Appendix E



HARGIS + ASSOCIATES, INC.

APPENDIX E

BROWN AND CALDWELL RAW ANALYTICAL DATA FROM
INITIAL GROUNDWATER SAMPLING ROUND FOR
WELLS MW-16 THROUGH MW-22 AND ANNUAL
GROUNDWATER SAMPLING ROUND, APRIL 16-21, 1990



HARGIS + ASSOCIATES, INC.

APPENDIX E

TABLE OF CONTENTS

REPORT LOG NO: G90-04-320

REPORT LOG NO: G90-04-368

REPORT LOG NO: G90-04-406

REPORT LOG NO: G90-04-440

REPORT LOG NO: G90-04-463

REPORT LOG NO: G90-04-464

Analytical Report

AMENDED REPORT

5-24-90

LOG NO: G90-04-320

Received: 17 APR 90

Reported: 01 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 1

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|----------|----------|
| PARAMETER | | 04-320-1 | 04-320-2 | 04-320-3 | 04-320-4 | 04-320-5 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | --- | 04/23/90 | 04/23/90 | 04/23/90 | 04/23/90 | 04/23/90 |
| Date Analyzed | --- | 04/30/90 | 04/30/90 | 04/30/90 | 04/30/90 | 04/30/90 |
| Dilution Factor, Times 1 | --- | 1 | 1 | 1 | 1 | 1 |
| Total BHC Isomers, ug/L | --- | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Total DDT Metabolites, ug/L | --- | <0.04 | <0.04 | 0.20 | 0.26 | |
| p,p'-DDD, ug/L | --- | <0.04 | <0.04 | 0.04 | 0.12 | |
| p,p'-DDE, ug/L | --- | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDT, ug/L | --- | <0.04 | <0.04 | 0.16 | 0.14 | |
| o,p'-DDD, ug/L | --- | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDE, ug/L | --- | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDT, ug/L | --- | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, alpha isomer, ug/L | --- | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, beta isomer, ug/L | --- | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, delta isomer, ug/L | --- | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | --- | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |

Analytical Report

REVISED REPORT

LOG NO: G90-04-320

Received: 17 APR 90

Reported: 01 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 2

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|----------|----------|----------|--|
| PARAMETER | 04-320-1 | 04-320-2 | 04-320-3 | 04-320-4 | 04-320-5 | |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | 04/23/90 | 04/23/90 | 04/23/90 | 04/23/90 | 04/24/90 | |
| Dilution Factor, Times 1 | 1 | 5 | 5 | 1 | 1 | |
| 1,1,1-Trichloroethane, ug/L | <1 | <5 | <5 | <1 | <1 | |
| 1,1,2,2-Tetrachloroethane, ug/L | <1 | <5 | <5 | <1 | <1 | |
| 1,1,2-Trichloroethane, ug/L | <1 | <5 | <5 | <1 | <1 | |
| 1,1-Dichloroethane, ug/L | <1 | <5 | <5 | <1 | <1 | |
| 1,1-Dichloroethene, ug/L | <1 | <5 | <5 | <1 | <1 | |
| 1,2-Dichloroethane, ug/L | <1 | <5 | <5 | <1 | <1 | |
| 1,2-Dichlorobenzene, ug/L | <1 | <5 | <5 | <1 | <1 | |
| 1,2-Dichloropropane, ug/L | <1 | <5 | <5 | <1 | <1 | |
| 1,3-Dichlorobenzene, ug/L | <1 | <5 | <5 | <1 | <1 | |
| 1,4-Dichlorobenzene, ug/L | <1 | <5 | <5 | <1 | <1 | |
| 2-Chloroethylvinylether, ug/L | <1 | <5 | <5 | <1 | <1 | |
| Acetone, ug/L | <10 | <50 | <50 | <10 | <10 | |
| Acrolein, ug/L | <20 | <100 | <100 | <20 | <20 | |
| Acrylonitrile, ug/L | <20 | <100 | <100 | <20 | <20 | |
| Bromodichloromethane, ug/L | <1 | <5 | <5 | <1 | <1 | |
| Bromomethane, ug/L | <1 | <5 | <5 | <1 | <1 | |
| Benzene, ug/L | <1 | <5 | <5 | <1 | 32 | |
| Bromoform, ug/L | <1 | <5 | <5 | <1 | <1 | |
| Chlorobenzene, ug/L | <1 | <5 | <5 | <1 | 2 | |
| Carbon Tetrachloride, ug/L | <1 | <5 | <5 | <1 | <1 | |

Analytical Report

REVISED REPORT

LOG NO: G90-04-320

Received: 17 APR 90

Reported: 01 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 3

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|--------------------------------------|--|--------------|----------|----------|----------|-----------|
| 04-320-1 | TB-1 | | | | | 16 APR 90 |
| 04-320-2 | MW-16 | | | | | 16 APR 90 |
| 04-320-3 | MW-1600 | | | | | 16 APR 90 |
| 04-320-4 | WB-1 | | | | | 16 APR 90 |
| 04-320-5 | MW-17 | | | | | 16 APR 90 |
| PARAMETER | 04-320-1 | 04-320-2 | 04-320-3 | 04-320-4 | 04-320-5 | |
| Chloroethane, ug/L | <1 | <5 | <5 | <1 | <1 | <1 |
| Chloroform, ug/L | <1 | 110 | 100 | <1 | | 8 |
| Chloromethane, ug/L | <2 | <10 | <10 | <2 | | <2 |
| Dibromochloromethane, ug/L | <1 | <5 | <5 | <1 | | <1 |
| Ethylbenzene, ug/L | <1 | <5 | <5 | <1 | | <1 |
| Methylene chloride, ug/L | <2 | <10 | <10 | <2 | | <2 |
| Trichloroethene, ug/L | <1 | 920 | 890 | <1 | | <1 |
| Trichlorofluoromethane, ug/L | <1 | <5 | <5 | <1 | | <1 |
| Toluene, ug/L | <1 | <5 | <5 | <1 | | 1 |
| Tetrachloroethene, ug/L | <1 | 30 | 30 | <1 | | 1 |
| Vinyl chloride, ug/L | <1 | <5 | <5 | <1 | | <1 |
| cis-1,3-Dichloropropene, ug/L | <1 | <5 | <5 | <1 | | <1 |
| trans-1,2-Dichloroethene, ug/L | <1 | <5 | <5 | <1 | | <1 |
| trans-1,3-Dichloropropene, ug/L | <1 | <5 | <5 | <1 | | <1 |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- | --- | --- | --- | --- |

Analytical Report

ANALYTICAL REPORT

LOG NO: G90-04-320

Received: 17 APR 90

Reported: 01 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 4

| LOG NO | SAMPLE DESCRIPTION, MATRIX SPIKE SAMPLES | DATE SAMPLED | |
|---|--|--------------|----------|
| 04-320-6 | MW-16 (BC/QC SPK) | 16 | APR 90 |
| 04-320-7 | MW-16 (BC/QC DUP-SPK) | 16 | APR 90 |
| PARAMETER | | 04-320-6 | 04-320-7 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | |
| Date Extracted | | 04/23/90 | 04/23/90 |
| Date Analyzed | | 04/30/90 | 04/30/90 |
| Dilution Factor, Times 1 | | 1 | 1 |
| p,p'-DDT, Percent | | 93 | 86 |
| BHC, gamma isomer (Lindane), Percent | | 45 | 36 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- | --- |
| VOCs Method 624 (SOP MS 00188) | | | |
| Date Analyzed | | 04/23/90 | 04/23/90 |
| Dilution Factor, Times 1 | | 5 | 5 |
| 1,1-Dichloroethene, Percent | | 73 | 86 |
| Benzene, Percent | | 86 | 100 |
| Chlorobenzene, Percent | | 87 | 100 |
| Trichloroethene, Percent | | 98 | 98 |
| Toluene, Percent | | 85 | 100 |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- |

Analytical Report

ANALYTICAL REPORT

LOG NO: G90-04-320

Received: 17 APR 90

Reported: 01 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 5

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-320-8 | Laboratory Control Standard | |
| PARAMETER | | 04-320-8 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/23/90 |
| Date Analyzed | | 04/30/90 |
| Dilution Factor, Times 1 | | 1 |
| p,p'-DDD, Percent | | 80 |
| p,p'-DDE, Percent | | 74 |
| p,p'-DDT, Percent | | 95 |
| BHC, alpha isomer, Percent | | 35 |
| BHC, beta isomer, Percent | | 41 |
| BHC, delta isomer, Percent | | 56 |
| BHC, gamma isomer (Lindane), Percent | | 41 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- |

Analytical Report

REVIEWED BY [Signature]

LOG NO: G90-04-320

Received: 17 APR 90

Reported: 01 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 6

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|------------------------------------|---|--------------|
| 04-320-8 | Laboratory Control Standard | |
| PARAMETER | | 04-320-8 |
| VOCs Method 624 (SOP MS 00188) | | 04/24/90 |
| Date Analyzed | | 04/24/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, Percent | | 75 |
| 1,1,2,2-Tetrachloroethane, Percent | | 100 |
| 1,1,2-Trichloroethane, Percent | | 110 |
| 1,1-Dichloroethane, Percent | | 85 |
| 1,1-Dichloroethene, Percent | | 80 |
| 1,2-Dichloroethane, Percent | | 90 |
| 1,2-Dichlorobenzene, Percent | | 115 |
| 1,2-Dichloropropane, Percent | | 95 |
| 1,3-Dichlorobenzene, Percent | | 100 |
| 1,4-Dichlorobenzene, Percent | | 105 |
| 2-Chloroethylvinylether, Percent | | 110 |
| Acetone, Percent | | 100 |
| Acrolein, Percent | | 92 |
| Acrylonitrile, Percent | | 86 |
| Bromodichloromethane, Percent | | 85 |
| Bromomethane, Percent | | 95 |
| Benzene, Percent | | 85 |
| Bromoform, Percent | | 80 |
| Chlorobenzene, Percent | | 100 |
| Carbon Tetrachloride, Percent | | 90 |
| Chloroethane, Percent | | 90 |
| Chloroform, Percent | | 90 |
| Chloromethane, Percent | | 65 |
| Dibromochloromethane, Percent | | 95 |

Analytical Report

RECEIVED REPORT

LOG NO: G90-04-320

Received: 17 APR 90

Reported: 01 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 7

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-320-8 | Laboratory Control Standard | |
| PARAMETER | | 04-320-8 |
| Ethylbenzene, Percent | 90 | |
| Methylene chloride, Percent | 165 | |
| Trichloroethene, Percent | 95 | |
| Trichlorofluoromethane, Percent | 65 | |
| Toluene, Percent | 90 | |
| Tetrachloroethene, Percent | 95 | |
| Vinyl chloride, Percent | 75 | |
| cis-1,3-Dichloropropene, Percent | 70 | |
| trans-1,2-Dichloroethene, Percent | 85 | |
| trans-1,3-Dichloropropene, Percent | 75 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Analytical Report

ANALYTICAL REPORT

LOG NO: G90-04-320

Received: 17 APR 90

Reported: 01 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 8

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-320-9 | Laboratory Blank | 04-320-9 |
| PARAMETER | | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/23/90 |
| Date Analyzed | | 04/30/90 |
| Dilution Factor, Times 1 | | 1 |
| Total BHC Isomers, ug/L | | <0.04 |
| Total DDT Metabolites, ug/L | | 0.1 |
| p,p'-DDD, ug/L | | <0.04 |
| p,p'-DDE, ug/L | | <0.04 |
| p,p'-DDT, ug/L | | 0.1 |
| o,p'-DDD, ug/L | | <0.04 |
| o,p'-DDE, ug/L | | <0.04 |
| o,p'-DDT, ug/L | | <0.04 |
| BHC, alpha isomer, ug/L | | <0.04 |
| BHC, beta isomer, ug/L | | <0.04 |
| BHC, delta isomer, ug/L | | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | | <0.04 |

Analytical Report

ANALYTICAL REPORT
G90-04-320

LOG NO: G90-04-320

Received: 17 APR 90

Reported: 01 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 10

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-320-9 | Laboratory Blank | 04-320-9 |
| PARAMETER | | |
| Ethylbenzene, ug/L | <1 | |
| Methylene chloride, ug/L | <2 | |
| Trichloroethene, ug/L | <1 | |
| Trichlorofluoromethane, ug/L | <1 | |
| Toluene, ug/L | <1 | |
| Tetrachloroethene, ug/L | <1 | |
| Vinyl chloride, ug/L | <1 | |
| cis-1,3-Dichloropropene, ug/L | <1 | |
| trans-1,2-Dichloroethene, ug/L | <1 | |
| trans-1,3-Dichloropropene, ug/L | <1 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

The method blank for the 8080 analysis was found to be contaminated with 0.1 ug/L of p,p'-DDT.

The levels of the same compound found in samples -4 and -5 could therefore be due to laboratory contamination. G. Havalias 05/01/90

Amended report; incorrect result for ethylbenzene reported for -9. L. Brack 05/08/90

Amended report; incorrect extraction dates were reported for all 608 samples. L. Brack 05/15/90

Amended report; incorrect methylene chloride detection limits reported for all samples.

L. Brack 05/17/90

Amended Report; acetone data corrected for G9004320-3. 05/23/90. --J. Freemyer.

Jeffrey A. Erion, Laboratory Manager

801 Western Avenue
Glendale, CA 91201

818/247-5737
Fax: 818/247-9797

BCA

B C Analytical

Analytical Report

RECEIVED
RECORDED

LOG NO: G90-04-320

Received: 17 APR 90

Reported: 01 MAY 90

Ms. Lanee Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 9

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---------------------------------|---|--------------|
| 04-320-9 | Laboratory Blank | |
| PARAMETER | | 04-320-9 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/23/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, ug/L | | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 |
| 1,1,2-Trichloroethane, ug/L | | <1 |
| 1,1-Dichloroethane, ug/L | | <1 |
| 1,1-Dichloroethene, ug/L | | <1 |
| 1,2-Dichloroethane, ug/L | | <1 |
| 1,2-Dichlorobenzene, ug/L | | <1 |
| 1,2-Dichloropropane, ug/L | | <1 |
| 1,3-Dichlorobenzene, ug/L | | <1 |
| 1,4-Dichlorobenzene, ug/L | | <1 |
| 2-Chloroethylvinylether, ug/L | | <1 |
| Acetone, ug/L | | <10 |
| Acrolein, ug/L | | <20 |
| Acrylonitrile, ug/L | | <20 |
| Bromodichloromethane, ug/L | | <1 |
| Bromomethane, ug/L | | <1 |
| Benzene, ug/L | | <1 |
| Bromoform, ug/L | | <1 |
| Chlorobenzene, ug/L | | <1 |
| Carbon Tetrachloride, ug/L | | <1 |
| Chloroethane, ug/L | | <1 |
| Chloroform, ug/L | | <1 |
| Chloromethane, ug/L | | <2 |
| Dibromochloromethane, ug/L | | <1 |

Analytical Report

6-15-90

LOG NO: G90-04-368

Received: 18 APR 90
Reported: 02 MAY 90

Ms. Lanae Raymond
 Hargis & Associates, Inc.
 3385 N. Campbell Ave., Ste 121
 Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 1

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|----------|----------|
| PARAMETER | | 04-368-1 | 04-368-2 | 04-368-3 | 04-368-4 | 04-368-5 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | 04/23/90 | --- | 04/23/90 | 04/23/90 | 04/23/90 | 04/23/90 |
| Date Analyzed | 04/26/90 | --- | 04/26/90 | 04/25/90 | 04/25/90 | 04/25/90 |
| Dilution Factor, Times 1 | 1 | --- | 1 | 1 | 1 | 1 |
| Total BHC Isomers, ug/L | <0.04 | --- | <0.04 | 0.21 | <0.04 | <0.04 |
| Total DDT Metabolites, ug/L | <0.04 | --- | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDD, ug/L | <0.04 | --- | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDE, ug/L | <0.04 | --- | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDT, ug/L | <0.04 | --- | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDD, ug/L | <0.04 | --- | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDE, ug/L | <0.04 | --- | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDT, ug/L | <0.04 | --- | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, alpha isomer, ug/L | <0.04 | --- | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, beta isomer, ug/L | <0.04 | --- | <0.04 | 0.09 | <0.04 | <0.04 |
| BHC, delta isomer, ug/L | <0.04 | --- | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | --- | <0.04 | 0.12 | <0.04 | <0.04 |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90

Reported: 02 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
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Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 2

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | | | | | DATE SAMPLED |
|---------------------------------|--|----------|----------|----------|----------|--------------|
| PARAMETER | 04-368-1 | 04-368-2 | 04-368-3 | 04-368-4 | 04-368-5 | |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | 04/25/90 | 04/24/90 | 04/25/90 | 04/24/90 | 04/24/90 | |
| Dilution Factor, Times 1 | 1 | 1 | 1 | 500 | 1 | |
| 1,1,1-Trichloroethane, ug/L | <1 | <1 | <1 | <500 | <1 | |
| 1,1,2,2-Tetrachloroethane, ug/L | <1 | <1 | <1 | <500 | <1 | |
| 1,1,2-Trichloroethane, ug/L | <1 | <1 | <1 | <500 | <1 | |
| 1,1-Dichloroethane, ug/L | <1 | <1 | <1 | <500 | <1 | |
| 1,1-Dichloroethene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| 1,2-Dichloroethane, ug/L | <1 | <1 | <1 | <500 | <1 | |
| 1,2-Dichlorobenzene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| 1,2-Dichloropropane, ug/L | <1 | <1 | <1 | <500 | <1 | |
| 1,3-Dichlorobenzene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| 1,4-Dichlorobenzene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| 2-Chloroethylvinylether, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Acetone, ug/L | <10 | <10 | <10 | <5000 | <10 | |
| Acrolein, ug/L | <20 | <20 | <20 | <10000 | <20 | |
| Acrylonitrile, ug/L | <20 | <20 | <20 | <10000 | <20 | |
| Bromodichloromethane, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Bromomethane, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Benzene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Bromoform, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Chlorobenzene, ug/L | 120 | <1 | <1 | 42000 | <1 | |
| Carbon Tetrachloride, ug/L | <1 | <1 | <1 | <500 | <1 | |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90
Reported: 02 MAY 90

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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 3

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | | | | | DATE SAMPLED |
|--------------------------------------|--|----------|----------|----------|----------|--------------|
| PARAMETER | 04-368-1 | 04-368-2 | 04-368-3 | 04-368-4 | 04-368-5 | |
| Chloroethane, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Chloroform, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Chloromethane, ug/L | <2 | <2 | <2 | <1000 | <2 | |
| Dibromochloromethane, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Ethylbenzene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Methylene chloride, ug/L | <2 | <2 | 2 | <1000 | <2 | |
| Trichloroethene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Trichlorofluoromethane, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Toluene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Tetrachloroethene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Vinyl chloride, ug/L | <1 | <1 | <1 | <500 | <1 | |
| cis-1,3-Dichloropropene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| trans-1,2-Dichloroethene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| trans-1,3-Dichloropropene, ug/L | <1 | <1 | <1 | <500 | <1 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- | --- | --- | --- | |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90

Reported: 02 MAY 90

Ms. Lanae Raymond
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 4

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|-----------|-----|
| PARAMETER | 04-368-6 | 04-368-7 | 04-368-8 | 04-368-9 | 04-368-10 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | 04/23/90 | 04/23/90 | 04/23/90 | 04/23/90 | 04/23/90 | --- |
| Date Analyzed | 04/26/90 | 04/25/90 | 04/27/90 | 04/27/90 | 04/27/90 | --- |
| Dilution Factor, Times 1 | 1 | 1 | 10 | 5 | 5 | --- |
| Total BHC Isomers, ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |
| Total DDT Metabolites, ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |
| p,p'-DDD, ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |
| p,p'-DDE, ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |
| p,p'-DDT, ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |
| o,p'-DDD, ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |
| o,p'-DDE, ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |
| o,p'-DDT, ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |
| BHC, alpha isomer, ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |
| BHC, beta isomer, ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |
| BHC, delta isomer, ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | <0.04 | <0.4 | <0.2 | <0.2 | --- |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90

Reported: 02 MAY 90

Ms. Lanae Raymond
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 5

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|----------|----------|----------|-----------|
| PARAMETER | | 04-368-6 | 04-368-7 | 04-368-8 | 04-368-9 | 04-368-10 |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | | 04/25/90 | 04/25/90 | 04/24/90 | 04/24/90 | 04/24/90 |
| Dilution Factor, Times 1 | | 10 | 10 | 500 | 100 | 1 |
| 1,1,1-Trichloroethane, ug/L | | <10 | <10 | <500 | <100 | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <10 | <10 | <500 | <100 | <1 |
| 1,1,2-Trichloroethane, ug/L | | <10 | <10 | <500 | <100 | <1 |
| 1,1-Dichloroethane, ug/L | | <10 | <10 | <500 | <100 | <1 |
| 1,1-Dichloroethene, ug/L | | <10 | <10 | <500 | <100 | <1 |
| 1,2-Dichloroethane, ug/L | | <10 | <10 | <500 | 600 | <1 |
| 1,2-Dichlorobenzene, ug/L | | <10 | <10 | <500 | <100 | <1 |
| 1,2-Dichloropropane, ug/L | | <10 | <10 | <500 | <100 | <1 |
| 1,3-Dichlorobenzene, ug/L | | <10 | <10 | <500 | <100 | <1 |
| 1,4-Dichlorobenzene, ug/L | | <10 | <10 | <500 | <100 | <1 |
| 2-Chloroethylvinylether, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Acetone, ug/L | | <100 | <100 | <5000 | <1000 | <10 |
| Acrolein, ug/L | | <200 | <200 | <10000 | <2000 | <20 |
| Acrylonitrile, ug/L | | <200 | <200 | <10000 | <2000 | <20 |
| Bromodichloromethane, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Bromomethane, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Benzene, ug/L | | <10 | <10 | <500 | 9000 | <1 |
| Bromoform, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Chlorobenzene, ug/L | | 2100 | 2000 | 45000 | 400 | <1 |
| Carbon Tetrachloride, ug/L | | <10 | <10 | <500 | <100 | <1 |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90

Reported: 02 MAY 90

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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 6

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|----------|-----------|
| PARAMETER | | 04-368-6 | 04-368-7 | 04-368-8 | 04-368-9 | 04-368-10 |
| Chloroethane, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Chloroform, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Chloromethane, ug/L | | <20 | <20 | <1000 | <200 | <2 |
| Dibromochloromethane, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Ethylbenzene, ug/L | | <10 | <10 | <500 | 2000 | <1 |
| Methylene chloride, ug/L | | <20 | <20 | <1000 | <200 | <2 |
| Trichloroethene, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Trichlorofluoromethane, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Toluene, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Tetrachloroethene, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Vinyl chloride, ug/L | | <10 | <10 | <500 | <100 | <1 |
| cis-1,3-Dichloropropene, ug/L | | <10 | <10 | <500 | <100 | <1 |
| trans-1,2-Dichloroethene, ug/L | | <10 | <10 | <500 | <100 | <1 |
| trans-1,3-Dichloropropene, ug/L | | <10 | <10 | <500 | <100 | <1 |
| Other VOCs Method 624 (SOP MS 00188)--- | | --- | --- | --- | --- | --- |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90
Reported: 02 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 7

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | |
|---|--|--------------|-----------|-----------|
| 04-368-11 | BF-16 | | 17 APR 90 | |
| 04-368-12 | MW-25 | | 17 APR 90 | |
| 04-368-13 | MW-26 | | 17 APR 90 | |
| PARAMETER | | 04-368-11 | 04-368-12 | 04-368-13 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | |
| Date Extracted | | 04/23/90 | 04/23/90 | 04/23/90 |
| Date Analyzed | | 04/26/90 | 04/27/90 | 04/26/90 |
| Dilution Factor, Times 1 | | 1 | 10 | 1 |
| Total BHC Isomers, ug/L | | <0.04 | <0.4 | <0.04 |
| Total DDT Metabolites, ug/L | | <0.04 | <0.04 | <0.04 |
| p,p'-DDD, ug/L | | <0.04 | <0.04 | <0.04 |
| p,p'-DDE, ug/L | | <0.04 | <0.04 | <0.04 |
| p,p'-DDT, ug/L | | <0.04 | <0.04 | <0.04 |
| o,p'-DDD, ug/L | | <0.04 | <0.04 | <0.04 |
| o,p'-DDE, ug/L | | <0.04 | <0.04 | <0.04 |
| o,p'-DDT, ug/L | | <0.04 | <0.04 | <0.04 |
| BHC, alpha isomer, ug/L | | <0.04 | <0.4 | <0.04 |
| BHC, beta isomer, ug/L | | <0.04 | 0.14 | <0.04 |
| BHC, delta isomer, ug/L | | <0.04 | <0.4 | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | | <0.04 | 0.19 | <0.04 |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90

Reported: 02 MAY 90

Ms. Lanae Raymond
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3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 8

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | |
|---------------------------------|--|--------------|-----------|-----------|
| PARAMETER | | 04-368-11 | 04-368-12 | 04-368-13 |
| 04-368-11 | BF-16 | | | 17 APR 90 |
| 04-368-12 | MW-25 | | | 17 APR 90 |
| 04-368-13 | MW-26 | | | 17 APR 90 |
| VOCs Method 624 (SOP MS 00188) | | 04/25/90 | 04/24/90 | 04/24/90 |
| Date Analyzed | | | | |
| Dilution Factor, Times 1 | | 1 | 20 | 1 |
| 1,1,1-Trichloroethane, ug/L | | <1 | <20 | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 | <20 | <1 |
| 1,1,2-Trichloroethane, ug/L | | <1 | <20 | <1 |
| 1,1-Dichloroethane, ug/L | | <1 | <20 | <1 |
| 1,1-Dichloroethene, ug/L | | <1 | <20 | <1 |
| 1,2-Dichloroethane, ug/L | | <1 | 100 | <1 |
| 1,2-Dichlorobenzene, ug/L | | <1 | <20 | <1 |
| 1,2-Dichloropropane, ug/L | | <1 | <20 | <1 |
| 1,3-Dichlorobenzene, ug/L | | <1 | <20 | <1 |
| 1,4-Dichlorobenzene, ug/L | | <1 | <20 | <1 |
| 2-Chloroethylvinylether, ug/L | | <1 | <20 | <1 |
| Acetone, ug/L | | <10 | <200 | <10 |
| Acrolein, ug/L | | <20 | <400 | <20 |
| Acrylonitrile, ug/L | | <20 | <400 | <20 |
| Bromodichloromethane, ug/L | | <1 | <20 | <1 |
| Bromomethane, ug/L | | <1 | <20 | <1 |
| Benzene, ug/L | | <1 | 1900 | <1 |
| Bromoform, ug/L | | <1 | <20 | <1 |
| Chlorobenzene, ug/L | | 150 | 990 | 6 |
| Carbon Tetrachloride, ug/L | | <1 | <20 | <1 |
| Chloroethane, ug/L | | <1 | <20 | <1 |
| Chloroform, ug/L | | <1 | 390 | <1 |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90
Reported: 02 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 9

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | |
|--------------------------------------|--|--------------|-----------|-----------|
| PARAMETER | | 04-368-11 | 04-368-12 | 04-368-13 |
| 04-368-11 | BF-16 | | | 17 APR 90 |
| 04-368-12 | MW-25 | | | 17 APR 90 |
| 04-368-13 | MW-26 | | | 17 APR 90 |
| | | | | |
| Chloromethane, ug/L | | <2 | <40 | <2 |
| Dibromochloromethane, ug/L | | <1 | <20 | <1 |
| Ethylbenzene, ug/L | | <1 | 60 | <1 |
| Methylene chloride, ug/L | | <2 | <40 | <2 |
| Trichloroethene, ug/L | | <1 | <20 | <1 |
| Trichlorofluoromethane, ug/L | | <1 | <20 | <1 |
| Toluene, ug/L | | <1 | 1800 | <1 |
| Tetrachloroethene, ug/L | | <1 | <20 | <1 |
| Vinyl chloride, ug/L | | <1 | <20 | <1 |
| cis-1,3-Dichloropropene, ug/L | | <1 | <20 | <1 |
| trans-1,2-Dichloroethene, ug/L | | <1 | <20 | <1 |
| trans-1,3-Dichloropropene, ug/L | | <1 | <20 | <1 |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- | --- |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90

Reported: 02 MAY 90

Ms. Lanae Raymond
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Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 10

| LOG NO | SAMPLE DESCRIPTION, MATRIX SPIKE SAMPLES | DATE SAMPLED | |
|---|--|--------------|-----------|
| 04-368-14 | BF-11 (BC/QC SPK) | 17 APR 90 | |
| 04-368-15 | BF-11 (BC/QC DUP-SPK) | 17 APR 90 | |
| PARAMETER | | 04-368-14 | 04-368-15 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | |
| Date Extracted | | 04/23/90 | 04/23/90 |
| Date Analyzed | | 04/27/90 | 04/27/90 |
| Dilution Factor, Times 1 | | 1 | 1 |
| p,p'-DDT, Percent | | 68 | 76 |
| BHC, gamma isomer (Lindane), Percent | | 59 | 65 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- | --- |
| VOCs Method 624 (SOP MS 00188) | | 04/25/90 | 04/25/90 |
| Date Analyzed | | 10 | 10 |
| Dilution Factor, Times 1 | | 95 | 80 |
| 1,1-Dichloroethene, Percent | | 115 | 110 |
| Benzene, Percent | | 105 | 105 |
| Chlorobenzene, Percent | | 110 | 110 |
| Trichloroethene, Percent | | 110 | 105 |
| Toluene, Percent | | --- | --- |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90
Reported: 02 MAY 90

Ms. Lanae Raymond
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 11

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-368-16 | Laboratory Control Standard | 04-368-16 |
| PARAMETER | | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/23/90 |
| Date Analyzed | | 04/27/90 |
| Dilution Factor, Times 1 | | 1 |
| p,p'-DDD, Percent | | 66 |
| p,p'-DDE, Percent | | 66 |
| p,p'-DDT, Percent | | 66 |
| BHC, alpha isomer, Percent | | 59 |
| BHC, beta isomer, Percent | | 101 |
| BHC, delta isomer, Percent | | 67 |
| BHC, gamma isomer (Lindane), Percent | | 64 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90
Reported: 02 MAY 90

Ms. Lanae Raymond
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3385 N. Campbell Ave., Ste 121
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 12

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|------------------------------------|---|--------------|
| 04-368-16 | Laboratory Control Standard | |
| PARAMETER | | 04-368-16 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/26/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, Percent | | 80 |
| 1,1,2,2-Tetrachloroethane, Percent | | 110 |
| 1,1,2-Trichloroethane, Percent | | 120 |
| 1,1-Dichloroethane, Percent | | 85 |
| 1,1-Dichloroethene, Percent | | 75 |
| 1,2-Dichloroethane, Percent | | 120 |
| 1,2-Dichlorobenzene, Percent | | 125 |
| 1,2-Dichloropropane, Percent | | 115 |
| 1,3-Dichlorobenzene, Percent | | 110 |
| 1,4-Dichlorobenzene, Percent | | 100 |
| 2-Chloroethylvinylether, Percent | | 120 |
| Acetone, Percent | | 62 |
| Acrolein, Percent | | 80 |
| Acrylonitrile, Percent | | 95 |
| Bromodichloromethane, Percent | | 115 |
| Bromomethane, Percent | | 80 |
| Benzene, Percent | | 110 |
| Bromoform, Percent | | 95 |
| Chlorobenzene, Percent | | 115 |
| Carbon Tetrachloride, Percent | | 85 |
| Chloroethane, Percent | | 70 |
| Chloroform, Percent | | 95 |
| Chloromethane, Percent | | 70 |
| Dibromochloromethane, Percent | | 115 |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90

Reported: 02 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 13

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-368-16 | Laboratory Control Standard | 04-368-16 |
| PARAMETER | | |
| Ethylbenzene, Percent | 105 | |
| Methylene chloride, Percent | 150 | |
| Trichloroethene, Percent | 105 | |
| Trichlorofluoromethane, Percent | 100 | |
| Toluene, Percent | 105 | |
| Tetrachloroethene, Percent | 100 | |
| Vinyl chloride, Percent | 65 | |
| cis-1,3-Dichloropropene, Percent | 90 | |
| trans-1,2-Dichloroethene, Percent | 90 | |
| trans-1,3-Dichloropropene, Percent | 90 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90
Reported: 02 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 14

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-368-17 | Laboratory Blank | 04-368-17 |
| PARAMETER | | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/23/90 |
| Date Analyzed | | 04/27/90 |
| Dilution Factor, Times 1 | | 1 |
| Total BHC Isomers, ug/L | | <0.04 |
| Total DDT Metabolites, ug/L | | <0.04 |
| p,p'-DDD, ug/L | | <0.04 |
| p,p'-DDE, ug/L | | <0.04 |
| p,p'-DDT, ug/L | | <0.04 |
| o,p'-DDD, ug/L | | <0.04 |
| o,p'-DDE, ug/L | | <0.04 |
| o,p'-DDT, ug/L | | <0.04 |
| BHC, alpha isomer, ug/L | | <0.04 |
| BHC, beta isomer, ug/L | | <0.04 |
| BHC, delta isomer, ug/L | | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | | <0.04 |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90

Reported: 02 MAY 90

Ms. Lenae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 15

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---------------------------------|---|--------------|
| 04-368-17 | Laboratory Blank | 04-368-17 |
| PARAMETER | | 04-368-17 |
| VOCs Method 614 (SOP MS 00188) | | 04/25/90 |
| Date Analyzed | | 04/25/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, ug/L | | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 |
| 1,1,2-Trichloroethane, ug/L | | <1 |
| 1,1-Dichloroethane, ug/L | | <1 |
| 1,1-Dichloroethene, ug/L | | <1 |
| 1,2-Dichloroethane, ug/L | | <1 |
| 1,2-Dichlorobenzene, ug/L | | <1 |
| 1,2-Dichloropropane, ug/L | | <1 |
| 1,3-Dichlorobenzene, ug/L | | <1 |
| 1,4-Dichlorobenzene, ug/L | | <1 |
| 2-Chloroethylvinyl ether, ug/L | | <10 |
| Acetone, ug/L | | <20 |
| Acrolein, ug/L | | <20 |
| Acrylonitrile, ug/L | | <1 |
| Bromodichloromethane, ug/L | | <1 |
| Bromomethane, ug/L | | <1 |
| Benzene, ug/L | | <1 |
| Bromoform, ug/L | | <1 |
| Chlorobenzene, ug/L | | <1 |
| Carbon Tetrachloride, ug/L | | <1 |
| Chloroethane, ug/L | | <1 |
| Chloroform, ug/L | | <1 |
| Chloromethane, ug/L | | <2 |
| Dibromochloromethane, ug/L | | <1 |

Analytical Report

LOG NO: G90-04-368

Received: 18 APR 90

Reported: 02 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 16

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-368-17 | Laboratory Blank | 04-368-17 |
| PARAMETER | | |
| Ethylbenzene, ug/L | <1 | |
| Methylene chloride, ug/L | <2 | |
| Trichloroethene, ug/L | <1 | |
| Trichlorofluoromethane, ug/L | <1 | |
| Toluene, ug/L | <1 | |
| Tetrachloroethene, ug/L | <1 | |
| Vinyl chloride, ug/L | <1 | |
| cis-1,3-Dichloropropene, ug/L | <1 | |
| trans-1,2-Dichloroethene, ug/L | <1 | |
| trans-1,3-Dichloropropene, ug/L | <1 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Amended report due to incorrect detection limits reported for methylene chloride for all of the samples in this order. L. Brack 05/10/90

Amended report due to incorrect date of analysis for -16, the LCS. It was run just after midnight and completed the batch started on 04/25/90.

L. Brack 05/12/90

Amended report; chlorobenzene was not reported in sample -1 and should have been. L. Brack 6/8/90

Amended report; results for -12 8080 analysis were corrected to reflect the undiluted sample run.

Detection limits for the DDT metabolites were lowered, and new values were reported for g-BHC and b-BHC. L. Brack 06/15/90

Kinda Brack for Hargis & Associates, Inc.
Jeffrey A. Erion, Laboratory Manager

801 Western Avenue
Glendale, CA 91201

818/247-5737
Fax: 818/247-9797



B C Analytical

Analytical Report

AMENDED REPORT

5-21-90

MAY 22 1990

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 1

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|----------|----------|
| PARAMETER | | 04-406-1 | 04-406-2 | 04-406-3 | 04-406-4 | 04-406-5 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | 04/24/90 | 04/23/90 | 04/23/90 | --- | 04/23/90 | |
| Date Analyzed | 04/30/90 | 05/01/90 | 04/26/90 | --- | 04/27/90 | |
| Dilution Factor, Times 1 | 1 | 1 | 1 | --- | 1 | |
| Total BHC Isomers, ug/L | <0.8 | <2 | <0.04 | --- | <0.04 | |
| Total DDT Metabolites, ug/L | <0.04 | <0.04 | <0.04 | --- | <0.04 | |
| p,p'-DDD, ug/L | <0.04 | <0.04 | <0.04 | --- | <0.04 | |
| p,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | --- | <0.04 | |
| p,p'-DDT, ug/L | <0.04 | <0.04 | <0.04 | --- | <0.04 | |
| o,p'-DDD, ug/L | <0.04 | <0.04 | <0.04 | --- | <0.04 | |
| o,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | --- | <0.04 | |
| o,p'-DDT, ug/L | <0.04 | <0.04 | <0.04 | --- | <0.04 | |
| BHC, alpha isomer, ug/L | <0.8 | <2 | <0.04 | --- | <0.04 | |
| BHC, beta isomer, ug/L | <0.8 | <2 | <0.04 | --- | <0.04 | |
| BHC, delta isomer, ug/L | <0.8 | <0.04 | <0.04 | --- | <0.04 | |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | <2 | <0.04 | --- | <0.04 | |

Analytical Report

RECEIVED REPORT

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 2

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|----------|----------|----------|----------|
| PARAMETER | | 04-406-1 | 04-406-2 | 04-406-3 | 04-406-4 | 04-406-5 |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | 04/27/90 | 04/27/90 | 04/25/90 | 04/25/90 | 04/25/90 | |
| Dilution Factor, Times 1 | 100 | 100 | 1 | 1 | 1 | 20 |
| 1,1,1-Trichloroethane, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| 1,1,2,2-Tetrachloroethane, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| 1,1,2-Trichloroethane, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| 1,1-Dichloroethane, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| 1,1-Dichloroethene, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| 1,2-Dichloroethane, ug/L | <100 | 390 | <1 | <1 | <1 | <20 |
| 1,2-Dichlorobenzene, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| 1,2-Dichloropropane, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| 1,3-Dichlorobenzene, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| 1,4-Dichlorobenzene, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| 2-Chloroethylvinylether, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| Acetone, ug/L | <1000 | <1000 | <10 | <10 | <10 | <200 |
| Acrolein, ug/L | <2000 | <2000 | <20 | <20 | <20 | <400 |
| Acrylonitrile, ug/L | <2000 | <2000 | <20 | <20 | <20 | <400 |
| Bromodichloromethane, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| Bromomethane, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| Benzene, ug/L | 12000 | 11000 | <1 | <1 | <1 | <20 |
| Bromoform, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |
| Chlorobenzene, ug/L | 8200 | 7200 | <1 | <1 | <1 | 2300 |
| Carbon Tetrachloride, ug/L | <100 | <100 | <1 | <1 | <1 | <20 |

Analytical Report

REPORT NO. 100-04-406
DATE RECEIVED: APR 19 1990

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 3

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|--------------------------------------|--|--------------|----------|----------|----------|-----------|
| 04-406-1 | MW-12 | | | | | 18 APR 90 |
| 04-406-2 | MW-1200 | | | | | 18 APR 90 |
| 04-406-3 | WB-1 | | | | | 18 APR 90 |
| 04-406-4 | TB-1 | | | | | 18 APR 90 |
| 04-406-5 | BF-5 | | | | | 18 APR 90 |
| PARAMETER | | 04-406-1 | 04-406-2 | 04-406-3 | 04-406-4 | 04-406-5 |
| Chloroethane, ug/L | | <100 | <100 | <1 | <1 | <20 |
| Chloroform, ug/L | | 5000 | 4800 | <1 | <1 | <20 |
| Chloromethane, ug/L | | <200 | <200 | <2 | <2 | <40 |
| Dibromochloromethane, ug/L | | <100 | <100 | <1 | <1 | <20 |
| Ethylbenzene, ug/L | | 1400 | 1300 | <1 | <1 | <20 |
| Methylene chloride, ug/L | | <200 | <200 | <2 | 4 | <40 |
| Trichloroethene, ug/L | | <100 | <100 | <1 | <1 | <20 |
| Trichlorofluoromethane, ug/L | | <100 | <100 | <1 | <1 | <20 |
| Toluene, ug/L | | 10000 | 9100 | <1 | <1 | <20 |
| Tetrachloroethene, ug/L | | <100 | <100 | <1 | <1 | <20 |
| Vinyl chloride, ug/L | | <100 | <100 | <1 | <1 | <20 |
| cis-1,3-Dichloropropene, ug/L | | <100 | <100 | <1 | <1 | <20 |
| trans-1,2-Dichloroethene, ug/L | | <100 | <100 | <1 | <1 | <20 |
| trans-1,3-Dichloropropene, ug/L | | <100 | <100 | <1 | <1 | <20 |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- | --- | --- | --- | --- |

Semi-Quantified Results **

| | | | | | | |
|----------------------------|------|------|-----|-----|-----|-----|
| Total Xylene Isomers, ug/L | 8000 | 7400 | --- | --- | --- | --- |
|----------------------------|------|------|-----|-----|-----|-----|

** Quantification based upon comparison of total ion count of the compound with that of the nearest internal standard.

Analytical Report

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 4

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|----------|-----------|
| PARAMETER | | 04-406-6 | 04-406-7 | 04-406-8 | 04-406-9 | 04-406-10 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | | 04/23/90 | 04/23/90 | 04/23/90 | 04/24/90 | 04/24/90 |
| Date Analyzed | | 04/26/90 | 04/27/90 | 04/26/90 | 04/28/90 | 04/28/90 |
| Dilution Factor, Times 1 | | 1 | 50 | 1 | 1 | 1 |
| Total BHC Isomers, ug/L | <0.04 | 21 | <0.04 | <0.04 | <0.04 | <0.04 |
| Total DDT Metabolites, ug/L | <0.04 | <2 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDD, ug/L | <0.04 | <2 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDE, ug/L | <0.04 | <2 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDT, ug/L | <0.04 | <2 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDD, ug/L | <0.04 | <2 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDE, ug/L | <0.04 | <2 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDT, ug/L | <0.04 | <2 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, alpha isomer, ug/L | <0.04 | 5 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, beta isomer, ug/L | <0.04 | 4 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, delta isomer, ug/L | <0.04 | 2 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | 10 | <0.04 | <0.04 | <0.04 | <0.04 |

Analytical Report

Environmental Services
Analytical Laboratory

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 5

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|----------|----------|-----------|-----------|
| PARAMETER | | 04-406-6 | 04-406-7 | 04-406-8 | 04-406-9 | 04-406-10 |
| 04-406-6 | G-4 | | | | 18 APR 90 | |
| 04-406-7 | MW-11 | | | | 18 APR 90 | |
| 04-406-8 | G-9 | | | | 18 APR 90 | |
| 04-406-9 | BF-10 | | | | 18 APR 90 | |
| 04-406-10 | BF-1 | | | | 18 APR 90 | |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | 04/25/90 | 04/25/90 | 04/25/90 | 04/30/90 | 04/30/90 | |
| Dilution Factor, Times 1 | 10 | 100 | 10 | 1 | 5 | |
| 1,1,1-Trichloroethane, ug/L | <10 | <100 | <10 | <1 | <5 | |
| 1,1,2,2-Tetrachloroethane, ug/L | <10 | <100 | <10 | <1 | <5 | |
| 1,1,2-Trichloroethane, ug/L | <10 | <100 | <10 | <1 | <5 | |
| 1,1-Dichloroethane, ug/L | <10 | <100 | <10 | <1 | <5 | |
| 1,1-Dichloroethene, ug/L | <10 | <100 | <10 | <1 | <5 | |
| 1,2-Dichloroethane, ug/L | <10 | <100 | <10 | <1 | <5 | |
| 1,2-Dichlorobenzene, ug/L | <10 | <100 | <10 | <1 | <5 | |
| 1,2-Dichloropropane, ug/L | <10 | <100 | <10 | <1 | <5 | |
| 1,3-Dichlorobenzene, ug/L | <10 | <100 | <10 | <1 | <5 | |
| 1,4-Dichlorobenzene, ug/L | <10 | <100 | <10 | <1 | <5 | |
| 2-Chloroethylvinylether, ug/L | <10 | <100 | <10 | <1 | <5 | |
| Acetone, ug/L | <100 | <1000 | <100 | <10 | <50 | |
| Acrolein, ug/L | <200 | <2000 | <200 | <20 | <100 | |
| Acrylonitrile, ug/L | <200 | <2000 | <200 | <20 | <100 | |
| Bromodichloromethane, ug/L | <10 | <100 | <10 | <1 | <5 | |
| Bromomethane, ug/L | <10 | <100 | <10 | <1 | <5 | |
| Benzene, ug/L | <10 | 1600 | 1300 | <1 | <5 | |
| Bromoform, ug/L | <10 | <100 | <10 | <1 | <5 | |
| Chlorobenzene, ug/L | 2000 | 20000 | <10 | <1 | 480 | |
| Carbon Tetrachloride, ug/L | <10 | <100 | <10 | <1 | <5 | |

Analytical Report

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 6

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|--------------------------------------|--|--------------|----------|----------|----------|-----------|
| PARAMETER | | 04-406-6 | 04-406-7 | 04-406-8 | 04-406-9 | 04-406-10 |
| Chloroethane, ug/L | | <10 | <100 | <10 | <1 | <5 |
| Chloroform, ug/L | | <10 | 700 | <10 | <1 | <5 |
| Chloromethane, ug/L | | <20 | <200 | <20 | <2 | <10 |
| Dibromochloromethane, ug/L | | <10 | <100 | <10 | <1 | <5 |
| Ethylbenzene, ug/L | | <10 | <100 | 20 | <1 | <5 |
| Methylene chloride, ug/L | | <20 | <200 | <20 | <2 | <10 |
| Trichloroethene, ug/L | | <10 | <100 | <10 | <1 | <5 |
| Trichlorofluoromethane, ug/L | | <10 | <100 | <10 | <1 | <5 |
| Toluene, ug/L | | <10 | <100 | <10 | <1 | <5 |
| Tetrachloroethene, ug/L | | <10 | 700 | <10 | <1 | <5 |
| Vinyl chloride, ug/L | | <10 | <100 | <10 | <1 | <5 |
| cis-1,3-Dichloropropene, ug/L | | <10 | <100 | <10 | <1 | <5 |
| trans-1,2-Dichloroethene, ug/L | | <10 | <100 | <10 | <1 | <5 |
| trans-1,3-Dichloropropene, ug/L | | <10 | <100 | <10 | <1 | <5 |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- | --- | --- | --- | --- |

Analytical Report

Environmental Analytical Laboratory
1000 Glendale Avenue, Suite 100
Glendale, CA 91201

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 7

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | | | | | DATE SAMPLED |
|---|--|-----------|-----------|-----------|-----------|--------------|
| PARAMETER | 04-406-11 | 04-406-12 | 04-406-13 | 04-406-14 | 04-406-15 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | 04/24/90 | 04/24/90 | 04/24/90 | 04/24/90 | 04/24/90 | 18 APR 90 |
| Date Analyzed | 04/28/90 | 04/28/90 | 04/30/90 | 04/28/90 | 04/28/90 | 18 APR 90 |
| Dilution Factor, Times 1 | 1 | 1 | 20 | 1 | 1 | 18 APR 90 |
| Total BHC Isomers, ug/L | <0.04 | <0.04 | 2 | <0.04 | <0.04 | 18 APR 90 |
| Total DDT Metabolites, ug/L | <0.04 | 0.09 | <0.8 | <0.04 | <0.04 | 18 APR 90 |
| p,p'-DDD, ug/L | <0.04 | 0.09 | <0.8 | <0.04 | <0.04 | 18 APR 90 |
| p,p'-DDE, ug/L | <0.04 | <0.04 | <0.8 | <0.04 | <0.04 | 18 APR 90 |
| p,p'-DDT, ug/L | <0.04 | <0.04 | <0.8 | <0.04 | <0.04 | 18 APR 90 |
| o,p'-DDD, ug/L | <0.04 | <0.04 | <0.8 | <0.04 | <0.04 | 18 APR 90 |
| o,p'-DDE, ug/L | <0.04 | <0.04 | <0.8 | <0.04 | <0.04 | 18 APR 90 |
| o,p'-DDT, ug/L | <0.04 | <0.04 | <0.8 | <0.04 | <0.04 | 18 APR 90 |
| BHC, alpha isomer, ug/L | <0.04 | <0.04 | <0.8 | <0.04 | <0.04 | 18 APR 90 |
| BHC, beta isomer, ug/L | <0.04 | <0.04 | <0.8 | <0.04 | <0.04 | 18 APR 90 |
| BHC, delta isomer, ug/L | <0.04 | <0.04 | <0.8 | <0.04 | <0.04 | 18 APR 90 |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | <0.04 | 2 | <0.04 | <0.04 | 18 APR 90 |

Analytical Report

REPORT NO. 218.2
RECEIVED MAY 1990

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 8

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|-----------|-----------|-----------|-----------|
| PARAMETER | | 04-406-11 | 04-406-12 | 04-406-13 | 04-406-14 | 04-406-15 |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | | 04/25/90 | 04/25/90 | 04/30/90 | 04/27/90 | 04/30/90 |
| Dilution Factor, Times 1 | | 50 | 1 | 250 | 25 | 1 |
| 1,1,1-Trichloroethane, ug/L | | <50 | <1 | <250 | <25 | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <50 | <1 | <250 | <25 | <1 |
| 1,1,2-Trichloroethane, ug/L | | <50 | <1 | <250 | <25 | <1 |
| 1,1-Dichloroethane, ug/L | | <50 | <1 | <250 | <25 | <1 |
| 1,1-Dichloroethene, ug/L | | <50 | <1 | <250 | <25 | <1 |
| 1,2-Dichloroethane, ug/L | | <50 | <1 | <250 | <25 | <1 |
| 1,2-Dichlorobenzene, ug/L | | <50 | <1 | <250 | <25 | <1 |
| 1,2-Dichloropropane, ug/L | | <50 | <1 | <250 | <25 | <1 |
| 1,3-Dichlorobenzene, ug/L | | <50 | <1 | <250 | <25 | <1 |
| 1,4-Dichlorobenzene, ug/L | | <50 | <1 | <250 | <25 | <1 |
| 2-Chloroethylvinylether, ug/L | | <50 | <1 | <250 | <25 | <1 |
| Acetone, ug/L | | <500 | <10 | <2500 | <250 | <10 |
| Acrolein, ug/L | | <1000 | <20 | <5000 | <500 | <20 |
| Acrylonitrile, ug/L | | <1000 | <20 | <5000 | <500 | <20 |
| Bromodichloromethane, ug/L | | <50 | <1 | <250 | <25 | <1 |
| Bromomethane, ug/L | | <50 | <1 | <250 | <25 | <1 |
| Benzene, ug/L | | <50 | <1 | <250 | <25 | <1 |
| Bromoform, ug/L | | <50 | <1 | <250 | <25 | <1 |
| Chlorobenzene, ug/L | | 6600 | 90 | 22000 | 2400 | <1 |
| Carbon Tetrachloride, ug/L | | <50 | <1 | <250 | <25 | <1 |

Analytical Report

Environmental Services

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
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3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 9

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|-----------|-----------|-----------|-----------|
| PARAMETER | | 04-406-11 | 04-406-12 | 04-406-13 | 04-406-14 | 04-406-15 |
| Chloroethane, ug/L | <50 | <1 | <250 | <25 | <1 | <1 |
| Chloroform, ug/L | <50 | <1 | <250 | <25 | <1 | <1 |
| Chloromethane, ug/L | <100 | <2 | <500 | <50 | <2 | <2 |
| Dibromochloromethane, ug/L | <50 | <1 | <250 | <25 | <1 | <1 |
| Ethylbenzene, ug/L | <50 | <1 | <250 | <25 | <1 | <1 |
| Methylene chloride, ug/L | <100 | <2 | <500 | <50 | <2 | <2 |
| Trichloroethene, ug/L | <50 | <1 | <250 | <25 | <1 | <1 |
| Trichlorofluoromethane, ug/L | <50 | <1 | <250 | <25 | <1 | <1 |
| Toluene, ug/L | <50 | <1 | <250 | <25 | <1 | <1 |
| Tetrachloroethene, ug/L | <50 | <1 | 200 | <25 | <1 | <1 |
| Vinyl chloride, ug/L | <50 | <1 | <250 | <25 | <1 | <1 |
| cis-1,3-Dichloropropene, ug/L | <50 | <1 | <250 | <25 | <1 | <1 |
| trans-1,2-Dichloroethene, ug/L | <50 | <1 | <250 | <25 | <1 | <1 |
| trans-1,3-Dichloropropene, ug/L | <50 | <1 | <250 | <25 | <1 | <1 |
| Other VOCs Method 624 (SOP MS 00188)--- | | --- | --- | --- | --- | --- |

Analytical Report

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
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Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 10

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|---|--|--------------|
| 04-406-16 | BF-14 | 18 APR 90 |
| PARAMETER | 04-406-16 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | 04/24/90 | |
| Date Analyzed | 04/28/90 | |
| Dilution Factor, Times 1 | 1 | |
| Total BHC Isomers, ug/L | <0.04 | |
| Total DDT Metabolites, ug/L | <0.04 | |
| p,p'-DDD, ug/L | <0.04 | |
| p,p'-DDE, ug/L | <0.04 | |
| p,p'-DDT, ug/L | <0.04 | |
| o,p'-DDD, ug/L | <0.04 | |
| o,p'-DDE, ug/L | <0.04 | |
| o,p'-DDT, ug/L | <0.04 | |
| BHC, alpha isomer, ug/L | <0.04 | |
| BHC, beta isomer, ug/L | <0.04 | |
| BHC, delta isomer, ug/L | <0.04 | |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | |

Analytical Report

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 11

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|---------------------------------|--|--------------|
| 04-406-16 | BF-14 | 18 APR 90 |
| PARAMETER | 04-406-16 | |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | 04/30/90 | |
| Dilution Factor, Times 1 | 20 | |
| 1,1,1-Trichloroethane, ug/L | <20 | |
| 1,1,2,2-Tetrachloroethane, ug/L | <20 | |
| 1,1,2-Trichloroethane, ug/L | <20 | |
| 1,1-Dichloroethane, ug/L | <20 | |
| 1,1-Dichloroethene, ug/L | <20 | |
| 1,2-Dichloroethane, ug/L | <20 | |
| 1,2-Dichlorobenzene, ug/L | <20 | |
| 1,2-Dichloropropane, ug/L | <20 | |
| 1,3-Dichlorobenzene, ug/L | <20 | |
| 1,4-Dichlorobenzene, ug/L | <20 | |
| 2-Chloroethylvinylether, ug/L | <20 | |
| Acetone, ug/L | <200 | |
| Acrolein, ug/L | <400 | |
| Acrylonitrile, ug/L | <400 | |
| Bromodichloromethane, ug/L | <20 | |
| Bromomethane, ug/L | <20 | |
| Benzene, ug/L | <20 | |
| Bromoform, ug/L | <20 | |
| Chlorobenzene, ug/L | 1800 | |
| Carbon Tetrachloride, ug/L | <20 | |
| Chloroethane, ug/L | <20 | |
| Chloroform, ug/L | <20 | |
| Chloromethane, ug/L | <40 | |
| Dibromochloromethane, ug/L | <20 | |

Analytical Report

RECEIVED
LABORATORY

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 12

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|--|--------------|
| 04-406-16 | BF-14 | 18 APR 90 |
| PARAMETER | 04-406-16 | |
| Ethylbenzene, ug/L | <20 | |
| Methylene chloride, ug/L | <40 | |
| Trichloroethene, ug/L | <20 | |
| Trichlorofluoromethane, ug/L | <20 | |
| Toluene, ug/L | <20 | |
| Tetrachloroethene, ug/L | <20 | |
| Vinyl chloride, ug/L | <20 | |
| cis-1,3-Dichloropropene, ug/L | <20 | |
| trans-1,2-Dichloroethene, ug/L | <20 | |
| trans-1,3-Dichloropropene, ug/L | <20 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Analytical Report

Environmental Testing
Analytical Services

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 13

| LOG NO | SAMPLE DESCRIPTION, MATRIX SPIKE SAMPLES | DATE SAMPLED | |
|---|--|--------------|-----------|
| 04-406-17 | MW-12 BC/QC SPK | | 18 APR 90 |
| 04-406-18 | MW-12 BC/QC DUP-SPK | | 18 APR 90 |
| PARAMETER | | 04-406-17 | 04-406-18 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | |
| Date Extracted | | 04/24/90 | 04/24/90 |
| Date Analyzed | | 04/30/90 | 04/30/90 |
| Dilution Factor, Times 1 | | 5 | 5 |
| p,p'-DDT, Percent | | 65 | 56 |
| BHC, gamma isomer (Lindane), Percent | | 114 | 111 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- | --- |
| VOCs Method 624 (SOP MS 00188) | | | |
| Date Analyzed | | 04/27/90 | 04/27/90 |
| Dilution Factor, Times 1 | | 100 | 100 |
| 1,1-Dichloroethene, Percent | | 75 | 85 |
| Benzene, Percent | | 150 | 100 |
| Chlorobenzene, Percent | | 110 | 97 |
| Trichloroethene, Percent | | 90 | 95 |
| Toluene, Percent | | 88 | 110 |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- |

Analytical Report

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 14

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-406-20 | Laboratory Control Standard | |
| PARAMETER | | 04-406-20 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/24/90 |
| Date Analyzed | | 04/28/90 |
| Dilution Factor, Times 1 | | 1 |
| p,p'-DDD, Percent | | 75 |
| p,p'-DDE, Percent | | 56 |
| p,p'-DDT, Percent | | 60 |
| BHC, alpha isomer, Percent | | 65 |
| BHC, beta isomer, Percent | | 100 |
| BHC, delta isomer, Percent | | 67 |
| BHC, gamma isomer (Lindane), Percent | | 65 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- |

Analytical Report

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 15

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|------------------------------------|---|--------------|
| 04-406-20 | Laboratory Control Standard | |
| PARAMETER | | 04-406-20 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/27/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, Percent | | 80 |
| 1,1,2,2-Tetrachloroethane, Percent | | 140 |
| 1,1,2-Trichloroethane, Percent | | 135 |
| 1,1-Dichloroethane, Percent | | 100 |
| 1,1-Dichloroethene, Percent | | 110 |
| 1,2-Dichloroethane, Percent | | 90 |
| 1,2-Dichlorobenzene, Percent | | 105 |
| 1,2-Dichloropropane, Percent | | 115 |
| 1,3-Dichlorobenzene, Percent | | 90 |
| 1,4-Dichlorobenzene, Percent | | 95 |
| 2-Chloroethylvinylether, Percent | | 115 |
| Acetone, Percent | | 110 |
| Acrolein, Percent | | 92 |
| Acrylonitrile, Percent | | 110 |
| Bromodichloromethane, Percent | | 90 |
| Bromomethane, Percent | | 95 |
| Benzene, Percent | | 125 |
| Bromoform, Percent | | 95 |
| Chlorobenzene, Percent | | 115 |
| Carbon Tetrachloride, Percent | | 80 |
| Chloroethane, Percent | | 100 |
| Chloroform, Percent | | 95 |
| Chloromethane, Percent | | 25 |
| Dibromochloromethane, Percent | | 95 |

Analytical Report

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
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3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 16

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-406-20 | Laboratory Control Standard | |
| PARAMETER | | 04-406-20 |
| Ethylbenzene, Percent | 110 | |
| Methylene chloride, Percent | 195 | |
| Trichloroethene, Percent | 105 | |
| Trichlorofluoromethane, Percent | 80 | |
| Toluene, Percent | 120 | |
| Tetrachloroethene, Percent | 95 | |
| Vinyl chloride, Percent | 85 | |
| cis-1,3-Dichloropropene, Percent | 85 | |
| trans-1,2-Dichloroethene, Percent | 105 | |
| trans-1,3-Dichloropropene, Percent | 85 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Analytical Report

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 17

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-406-21 | Laboratory Blank | |
| PARAMETER | | 04-406-21 |
| <hr/> | | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/24/90 |
| Date Analyzed | | 04/28/90 |
| Dilution Factor, Times 1 | | 1 |
| Total BHC Isomers, ug/L | | <0.04 |
| Total DDT Metabolites, ug/L | | <0.04 |
| p,p'-DDD, ug/L | | <0.04 |
| p,p'-DDE, ug/L | | <0.04 |
| p,p'-DDT, ug/L | | <0.04 |
| o,p'-DDD, ug/L | | <0.04 |
| o,p'-DDE, ug/L | | <0.04 |
| o,p'-DDT, ug/L | | <0.04 |
| BHC, alpha isomer, ug/L | | <0.04 |
| BHC, beta isomer, ug/L | | <0.04 |
| BHC, delta isomer, ug/L | | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | | <0.04 |

Analytical Report

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 18

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---------------------------------|---|--------------|
| 04-406-21 | Laboratory Blank | |
| PARAMETER | | 04-406-21 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/27/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, ug/L | | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 |
| 1,1,2-Trichloroethane, ug/L | | <1 |
| 1,1-Dichloroethane, ug/L | | <1 |
| 1,1-Dichloroethene, ug/L | | <1 |
| 1,2-Dichloroethane, ug/L | | <1 |
| 1,2-Dichlorobenzene, ug/L | | <1 |
| 1,2-Dichloropropane, ug/L | | <1 |
| 1,3-Dichlorobenzene, ug/L | | <1 |
| 1,4-Dichlorobenzene, ug/L | | <1 |
| 2-Chloroethylvinylether, ug/L | | <1 |
| Acetone, ug/L | | <10 |
| Acrolein, ug/L | | <20 |
| Acrylonitrile, ug/L | | <20 |
| Bromodichloromethane, ug/L | | <1 |
| Bromomethane, ug/L | | <1 |
| Benzene, ug/L | | <1 |
| Bromoform, ug/L | | <1 |
| Chlorobenzene, ug/L | | <1 |
| Carbon Tetrachloride, ug/L | | <1 |
| Chloroethane, ug/L | | <1 |
| Chloroform, ug/L | | <1 |
| Chloromethane, ug/L | | <2 |
| Dibromochloromethane, ug/L | | <1 |

Analytical Report

LOG NO: G90-04-406

Received: 19 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 19

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-406-21 | Laboratory Blank | 04-406-21 |
| PARAMETER | | |
| Ethylbenzene, ug/L | <1 | |
| Methylene chloride, ug/L | <2 | |
| Trichloroethene, ug/L | <1 | |
| Trichlorofluoromethane, ug/L | <1 | |
| Toluene, ug/L | <1 | |
| Tetrachloroethene, ug/L | <1 | |
| Vinyl chloride, ug/L | <1 | |
| cis-1,3-Dichloropropene, ug/L | <1 | |
| trans-1,2-Dichloroethene, ug/L | <1 | |
| trans-1,3-Dichloropropene, ug/L | <1 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Amended report due to incorrect 624 analysis date
of the Lab Blank and Laboratory Control Standard.

L. Brack 05/12/90

Amended report due to incorrect 1,4-dichloroben-
zene detection limit for -8 and incorrect
detection limits reported for -14 where a 1:25
dilution was made and for -13 where a 1:250
dilution was made. L. Brack 05/16/90

Amended report due to incorrect acetone detection
limit reported for -8. L. Brack 05/21/90

Jeffrey A. Erion, Laboratory Manager

Analytical Report

AMENDED REPORT

5-24-90

LOG NO: G90-04-440

Received: 20 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 1

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|----------|-----------|
| 04-440-1 | BF-13 | | | | | 19 APR 90 |
| 04-440-2 | G-11 | | | | | 19 APR 90 |
| 04-440-3 | MW-22 | | | | | 19 APR 90 |
| 04-440-4 | BF-17 | | | | | 19 APR 90 |
| 04-440-5 | BF-12 | | | | | 19 APR 90 |
| PARAMETER | 04-440-1 | 04-440-2 | 04-440-3 | 04-440-4 | 04-440-5 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | 04/25/90 | 04/25/90 | 04/25/90 | 04/25/90 | 04/25/90 | 04/25/90 |
| Date Analyzed | 05/03/90 | 05/03/90 | 05/03/90 | 05/03/90 | 05/03/90 | 05/03/90 |
| Dilution Factor, Times 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total BHC Isomers, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Total DDT Metabolites, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDD, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDT, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDD, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDT, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, alpha isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, beta isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, delta isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |

Analytical Report

RECEIVED [REDACTED]

LOG NO: G90-04-440

Received: 20 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 2

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|----------|----------|----------|----------|
| PARAMETER | | 04-440-1 | 04-440-2 | 04-440-3 | 04-440-4 | 04-440-5 |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | 04/27/90 | 04/27/90 | 04/27/90 | 04/27/90 | 04/27/90 | |
| Dilution Factor, Times 1 | 250 | 1 | 1 | 50 | 1 | |
| 1,1,1-Trichloroethane, ug/L | <250 | <1 | <1 | <50 | <1 | |
| 1,1,2,2-Tetrachloroethane, ug/L | <250 | <1 | <1 | <50 | <1 | |
| 1,1,2-Trichloroethane, ug/L | <250 | <1 | 3 | <50 | <1 | |
| 1,1-Dichloroethane, ug/L | <250 | <1 | <1 | <50 | <1 | |
| 1,1-Dichloroethene, ug/L | <250 | <1 | <1 | <50 | <1 | |
| 1,2-Dichloroethane, ug/L | <250 | <1 | <1 | <50 | <1 | |
| 1,2-Dichlorobenzene, ug/L | <250 | <1 | <1 | <50 | <1 | |
| 1,2-Dichloropropane, ug/L | <250 | <1 | <1 | <50 | <1 | |
| 1,3-Dichlorobenzene, ug/L | <250 | <1 | <1 | <50 | <1 | |
| 1,4-Dichlorobenzene, ug/L | <250 | <1 | <1 | <50 | <1 | |
| 2-Chloroethylvinylether, ug/L | <250 | <1 | <1 | <50 | <1 | |
| Acetone, ug/L | <2500 | <10 | <10 | <500 | <10 | |
| Acrolein, ug/L | <5000 | <20 | <20 | <1000 | <20 | |
| Acrylonitrile, ug/L | <5000 | <20 | <20 | <1000 | <20 | |
| Bromodichloromethane, ug/L | <250 | <1 | <1 | <50 | <1 | |
| Bromomethane, ug/L | <250 | <1 | <1 | <50 | <1 | |
| Benzene, ug/L | 37000 | <1 | <1 | <50 | <1 | |
| Bromoform, ug/L | <250 | <1 | <1 | <50 | <1 | |
| Chlorobenzene, ug/L | <250 | <1 | <1 | 4100 | <1 | |
| Carbon Tetrachloride, ug/L | <250 | <1 | 1 | <50 | <1 | |

Analytical Report

LOG NO: G90-04-440

Received: 20 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 3

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|----------|--|
| PARAMETER | 04-440-1 | 04-440-2 | 04-440-3 | 04-440-4 | 04-440-5 | |
| Chloroethane, ug/L | <250 | <1 | <1 | <50 | <1 | |
| Chloroform, ug/L | <250 | <1 | 45 | <50 | <1 | |
| Chloromethane, ug/L | <500 | <2 | <2 | <100 | <2 | |
| Dibromochloromethane, ug/L | <250 | <1 | <1 | <50 | <1 | |
| Ethylbenzene, ug/L | 700 | <1 | <1 | <50 | <1 | |
| Methylene chloride, ug/L | <500 | <2 | <2 | <100 | <2 | |
| Trichloroethene, ug/L | <250 | <1 | 13 | <50 | <1 | |
| Trichlorofluoromethane, ug/L | <250 | <1 | <1 | <50 | <1 | |
| Toluene, ug/L | <250 | <1 | <1 | <50 | <1 | |
| Tetrachloroethene, ug/L | <250 | <1 | <1 | <50 | <1 | |
| Vinyl chloride, ug/L | <250 | <1 | <1 | <50 | <1 | |
| cis-1,3-Dichloropropene, ug/L | <250 | <1 | <1 | <50 | <1 | |
| trans-1,2-Dichloroethene, ug/L | <250 | <1 | <1 | <50 | <1 | |
| trans-1,3-Dichloropropene, ug/L | <250 | <1 | <1 | <50 | <1 | |
| Other VOCs Method 624 (SOP MS 00188)--- | --- | --- | --- | --- | --- | |

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|-----------|-----------|
| 04-440-6 | G-12 | | | | | 19 APR 90 |
| 04-440-7 | LW-1 | | | | | 19 APR 90 |
| 04-440-8 | LW-100 | | | | | 19 APR 90 |
| 04-440-9 | WB-1 | | | | | 19 APR 90 |
| 04-440-10 | LG-2 | | | | | 19 APR 90 |
| PARAMETER | 04-440-6 | 04-440-7 | 04-440-8 | 04-440-9 | 04-440-10 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | 04/25/90 | 04/25/90 | 04/25/90 | 04/25/90 | 04/25/90 | |
| Date Analyzed | 05/03/90 | 05/03/90 | 05/03/90 | 05/03/90 | 05/03/90 | |
| Dilution Factor, Times 1 | 1 | 1 | 1 | 1 | 1 | |
| Total BHC Isomers, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Total DDT Metabolites, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDD, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDT, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDD, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDT, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, alpha isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, beta isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, delta isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |

Analytical Report

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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|----------|----------|----------|-----------|
| PARAMETER | | 04-440-6 | 04-440-7 | 04-440-8 | 04-440-9 | 04-440-10 |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | | 04/27/90 | 04/29/90 | 04/27/90 | 04/27/90 | 04/27/90 |
| Dilution Factor, Times 1 | 10 | | 1 | 1 | 1 | 5 |
| 1,1,1-Trichloroethane, ug/L | <10 | | <1 | <1 | <1 | <5 |
| 1,1,2,2-Tetrachloroethane, ug/L | <10 | | <1 | <1 | <1 | <5 |
| 1,1,2-Trichloroethane, ug/L | <10 | | <1 | <1 | <1 | <5 |
| 1,1-Dichloroethane, ug/L | <10 | | <1 | <1 | <1 | <5 |
| 1,1-Dichloroethene, ug/L | <10 | | <1 | <1 | <1 | <5 |
| 1,2-Dichloroethane, ug/L | <10 | | <1 | <1 | <1 | <5 |
| 1,2-Dichlorobenzene, ug/L | <10 | | <1 | <1 | <1 | <5 |
| 1,2-Dichloropropane, ug/L | <10 | | <1 | <1 | <1 | <5 |
| 1,3-Dichlorobenzene, ug/L | <10 | | <1 | <1 | <1 | <5 |
| 1,4-Dichlorobenzene, ug/L | <10 | | <1 | <1 | <1 | <5 |
| 2-Chloroethylvinylether, ug/L | <10 | | <1 | <1 | <1 | <5 |
| Acetone, ug/L | <100 | | <10 | <10 | <10 | <50 |
| Acrolein, ug/L | <200 | | <20 | <20 | <20 | <100 |
| Acrylonitrile, ug/L | <200 | | <20 | <20 | <20 | <100 |
| Bromodichloromethane, ug/L | <10 | | <1 | <1 | <1 | <5 |
| Bromomethane, ug/L | <10 | | <1 | <1 | <1 | <5 |
| Benzene, ug/L | 20 | | <1 | <1 | <1 | <5 |
| Bromoform, ug/L | <10 | | <1 | <1 | <1 | <5 |
| Chlorobenzene, ug/L | 970 | | 12 | 14 | <1 | 390 |
| Carbon Tetrachloride, ug/L | <10 | | <1 | <1 | <1 | <5 |

Analytical Report

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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 6

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|--------------------------------------|--|--------------|----------|----------|----------|-----------|
| 04-440-6 | G-12 | | | | | 19 APR 90 |
| 04-440-7 | LW-1 | | | | | 19 APR 90 |
| 04-440-8 | LW-100 | | | | | 19 APR 90 |
| 04-440-9 | WB-1 | | | | | 19 APR 90 |
| 04-440-10 | LG-2 | | | | | 19 APR 90 |
| PARAMETER | | 04-440-6 | 04-440-7 | 04-440-8 | 04-440-9 | 04-440-10 |
| Chloroethane, ug/L | | <10 | <1 | <1 | <1 | <5 |
| Chloroform, ug/L | | <10 | <1 | <1 | <1 | <5 |
| Chloromethane, ug/L | | <20 | <2 | <2 | <2 | <10 |
| Dibromochloromethane, ug/L | | <10 | <1 | <1 | <1 | <5 |
| Ethylbenzene, ug/L | | 20 | <1 | <1 | <1 | <5 |
| Methylene chloride, ug/L | | <20 | <2 | <2 | <2 | <10 |
| Trichloroethene, ug/L | | <10 | <1 | <1 | <1 | <5 |
| Trichlorofluoromethane, ug/L | | <10 | <1 | <1 | <1 | <5 |
| Toluene, ug/L | | <10 | <1 | <1 | <1 | <5 |
| Tetrachloroethene, ug/L | | <10 | <1 | <1 | <1 | <5 |
| Vinyl chloride, ug/L | | <10 | <1 | <1 | <1 | <5 |
| cis-1,3-Dichloropropene, ug/L | | <10 | <1 | <1 | <1 | <5 |
| trans-1,2-Dichloroethene, ug/L | | <10 | <1 | <1 | <1 | <5 |
| trans-1,3-Dichloropropene, ug/L | | <10 | <1 | <1 | <1 | <5 |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- | --- | --- | --- | --- |

Analytical Report

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MAY 11 1990

LOG NO: G90-04-440

Received: 20 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
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Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 7

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | |
|---|--|--------------|-----------|-----------|
| PARAMETER | | 04-440-11 | 04-440-12 | 04-440-13 |
| 04-440-11 | BF-9 | | 19 APR 90 | |
| 04-440-12 | G-13 | | 19 APR 90 | |
| 04-440-13 | G-3 | | 19 APR 90 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | |
| Date Extracted | | 04/25/90 | 04/25/90 | 04/25/90 |
| Date Analyzed | | 05/03/90 | 05/03/90 | 05/03/90 |
| Dilution Factor, Times 1 | | 50 | 1 | 1 |
| Total BHC Isomers, ug/L | | <2 | <0.04 | <0.04 |
| Total DDT Metabolites, ug/L | | 5 | <0.04 | <0.04 |
| p,p'-DDD, ug/L | | 5 | <0.04 | <0.04 |
| p,p'-DDE, ug/L | | <2 | <0.04 | <0.04 |
| p,p'-DDT, ug/L | | <2 | <0.04 | <0.04 |
| o,p'-DDD, ug/L | | <2 | <0.04 | <0.04 |
| o,p'-DDE, ug/L | | <2 | <0.04 | <0.04 |
| o,p'-DDT, ug/L | | <2 | <0.04 | <0.04 |
| BHC, alpha isomer, ug/L | | <2 | <0.04 | <0.04 |
| BHC, beta isomer, ug/L | | <2 | <0.04 | <0.04 |
| BHC, delta isomer, ug/L | | <2 | <0.04 | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | | <2 | <0.04 | <0.04 |

Analytical Report

100

LOG NO: G90-04-440

Received: 20 APR 90

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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 8

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | |
|---------------------------------|--|--------------|-----------|-----------|
| PARAMETER | | 04-440-11 | 04-440-12 | 04-440-13 |
| 04-440-11 | BF-9 | | 19 APR 90 | |
| 04-440-12 | G-13 | | 19 APR 90 | |
| 04-440-13 | G-3 | | 19 APR 90 | |
| VOCs Method 624 (SOP MS 00188) | | | | |
| Date Analyzed | | 04/27/90 | 04/27/90 | 04/27/90 |
| Dilution Factor, Times 1 | | 100 | 20 | 20 |
| 1,1,1-Trichloroethane, ug/L | | <100 | <20 | <20 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <100 | <20 | <20 |
| 1,1,2-Trichloroethane, ug/L | | <100 | <20 | <20 |
| 1,1-Dichloroethane, ug/L | | <100 | <20 | <20 |
| 1,1-Dichloroethene, ug/L | | <100 | <20 | <20 |
| 1,2-Dichloroethane, ug/L | | <100 | <20 | <20 |
| 1,2-Dichlorobenzene, ug/L | | <100 | <20 | <20 |
| 1,2-Dichloropropane, ug/L | | <100 | <20 | <20 |
| 1,3-Dichlorobenzene, ug/L | | <100 | <20 | <20 |
| 1,4-Dichlorobenzene, ug/L | | <100 | <20 | <20 |
| 2-Chloroethylvinylether, ug/L | | <100 | <20 | <20 |
| Acetone, ug/L | | <1000 | <200 | <200 |
| Acrolein, ug/L | | <2000 | <400 | <400 |
| Acrylonitrile, ug/L | | <2000 | <400 | <400 |
| Bromodichloromethane, ug/L | | <100 | <20 | <20 |
| Bromomethane, ug/L | | <100 | <20 | <20 |
| Benzene, ug/L | | <100 | <20 | <20 |
| Bromoform, ug/L | | <100 | <20 | <20 |
| Chlorobenzene, ug/L | | 12000 | 1400 | 2200 |
| Carbon Tetrachloride, ug/L | | <100 | <20 | <20 |
| Chloroethane, ug/L | | <100 | <20 | <20 |
| Chloroform, ug/L | | 300 | <20 | <20 |

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | |
|--------------------------------------|--|--------------|-----------|-----------|
| PARAMETER | | 04-440-11 | 04-440-12 | 04-440-13 |
| 04-440-11 | BF-9 | | | 19 APR 90 |
| 04-440-12 | G-13 | | | 19 APR 90 |
| 04-440-13 | G-3 | | | 19 APR 90 |
| Chloromethane, ug/L | | <200 | <40 | <40 |
| Dibromochloromethane, ug/L | | <100 | <20 | <20 |
| Ethylbenzene, ug/L | | <100 | <20 | <20 |
| Methylene chloride, ug/L | | <200 | <40 | <40 |
| Trichloroethene, ug/L | | <100 | <20 | <20 |
| Trichlorofluoromethane, ug/L | | <100 | <20 | <20 |
| Toluene, ug/L | | <100 | <20 | <20 |
| Tetrachloroethene, ug/L | | <100 | <20 | <20 |
| Vinyl chloride, ug/L | | <100 | <20 | <20 |
| cis-1,3-Dichloropropene, ug/L | | <100 | <20 | <20 |
| trans-1,2-Dichloroethene, ug/L | | <100 | <20 | <20 |
| trans-1,3-Dichloropropene, ug/L | | <100 | <20 | <20 |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- | --- |

Analytical Report

REPORT NO. 218.2

LOG NO: G90-04-440

Received: 20 APR 90

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---|---|------------------------|
| 04-440-14 | TB-2 | 19 APR 90 |
| 04-440-17 | Laboratory Blank | |
| PARAMETER | | 04-440-14 04-440-17 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | --- | 04/25/90 |
| Date Analyzed | --- | 05/03/90 |
| Dilution Factor, Times 1 | --- | 1 |
| Total BHC Isomers, ug/L | --- | <0.04 |
| Total DDT Metabolites, ug/L | --- | <0.04 |
| p,p'-DDD, ug/L | --- | <0.04 |
| p,p'-DDE, ug/L | --- | <0.04 |
| p,p'-DDT, ug/L | --- | <0.04 |
| o,p'-DDD, ug/L | --- | <0.04 |
| o,p'-DDE, ug/L | --- | <0.04 |
| o,p'-DDT, ug/L | --- | <0.04 |
| BHC, alpha isomer, ug/L | --- | <0.04 |
| BHC, beta isomer, ug/L | --- | <0.04 |
| BHC, delta isomer, ug/L | --- | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | --- | <0.04 |

Analytical Report

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---------------------------------|---|------------------------|
| 04-440-14 | TB-2 | 19 APR 90 |
| 04-440-17 | Laboratory Blank | |
| PARAMETER | | 04-440-14 04-440-17 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | 04/27/90 | 04/27/90 |
| Dilution Factor, Times 1 | 1 | 1 |
| 1,1,1-Trichloroethane, ug/L | <1 | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | <1 | <1 |
| 1,1,2-Trichloroethane, ug/L | <1 | <1 |
| 1,1-Dichloroethane, ug/L | <1 | <1 |
| 1,1-Dichloroethene, ug/L | <1 | <1 |
| 1,2-Dichloroethane, ug/L | <1 | <1 |
| 1,2-Dichlorobenzene, ug/L | <1 | <1 |
| 1,2-Dichloropropane, ug/L | <1 | <1 |
| 1,3-Dichlorobenzene, ug/L | <1 | <1 |
| 1,4-Dichlorobenzene, ug/L | <1 | <1 |
| 2-Chloroethylvinylether, ug/L | <1 | <1 |
| Acetone, ug/L | <10 | <10 |
| Acrolein, ug/L | <20 | <20 |
| Acrylonitrile, ug/L | <20 | <20 |
| Bromodichloromethane, ug/L | <1 | <1 |
| Bromomethane, ug/L | <1 | <1 |
| Benzene, ug/L | <1 | <1 |
| Bromoform, ug/L | <1 | <1 |
| Chlorobenzene, ug/L | <1 | <1 |
| Carbon Tetrachloride, ug/L | <1 | <1 |
| Chloroethane, ug/L | <1 | <1 |
| Chloroform, ug/L | <1 | <1 |
| Chloromethane, ug/L | <2 | <2 |

Analytical Report

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-440-14 | TB-2 | 19 APR 90 |
| 04-440-17 | Laboratory Blank | |
| PARAMETER | 04-440-14 | 04-440-17 |
| Dibromochloromethane, ug/L | <1 | <1 |
| Ethylbenzene, ug/L | <1 | <1 |
| Methylene chloride, ug/L | <2 | <2 |
| Trichloroethene, ug/L | <1 | <1 |
| Trichlorofluoromethane, ug/L | <1 | <1 |
| Toluene, ug/L | <1 | <1 |
| Tetrachloroethene, ug/L | <1 | <1 |
| Vinyl chloride, ug/L | <1 | <1 |
| cis-1,3-Dichloropropene, ug/L | <1 | <1 |
| trans-1,2-Dichloroethene, ug/L | <1 | <1 |
| trans-1,3-Dichloropropene, ug/L | <1 | <1 |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- |

Analytical Report

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, MATRIX SPIKE SAMPLES | DATE SAMPLED | |
|---|--|--------------|-----------|
| 04-440-15 | LW-1 BC/QC SPK | | 19 APR 90 |
| 04-440-16 | LW-1 BC/QC DUP-SPK | | 19 APR 90 |
| PARAMETER | | 04-440-15 | 04-440-16 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | |
| Date Extracted | | 04/25/90 | 04/25/90 |
| Date Analyzed | | 05/03/90 | 05/03/90 |
| Dilution Factor, Times 1 | | 1 | 1 |
| o,p'-DDT, Percent | | 74 | 72 |
| BHC, gamma isomer (Lindane), Percent | | 46 | 48 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- | --- |
| VOCs Method 624 (SOP MS 00188) | | | |
| Date Analyzed | | 04/29/90 | 04/29/90 |
| Dilution Factor, Times 1 | | 1 | 1 |
| 1,1-Dichloroethene, Percent | | 80 | 75 |
| Benzene, Percent | | 95 | 100 |
| Chlorobenzene, Percent | | 79 | 77 |
| Trichloroethene, Percent | | 100 | 105 |
| Toluene, Percent | | 95 | 95 |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- |

Analytical Report

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-440-18 | Laboratory Control Standard | |
| PARAMETER | | 04-440-18 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/25/90 |
| Date Analyzed | | 05/03/90 |
| Dilution Factor, Times 1 | | 1 |
| p,p'-DDD, Percent | | 87 |
| p,p'-DDE, Percent | | 87 |
| p,p'-DDT, Percent | | 93 |
| BHC, alpha isomer, Percent | | 32 |
| BHC, beta isomer, Percent | | 88 |
| BHC, delta isomer, Percent | | 61 |
| BHC, gamma isomer (Lindane), Percent | | 41 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- |

Analytical Report

LOG NO: G90-04-440

Received: 20 APR 90

Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 15

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|------------------------------------|---|--------------|
| 04-440-18 | Laboratory Control Standard | |
| PARAMETER | | 04-440-18 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 04/27/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, Percent | | 85 |
| 1,1,2,2-Tetrachloroethane, Percent | | 105 |
| 1,1,2-Trichloroethane, Percent | | 110 |
| 1,1-Dichloroethane, Percent | | 85 |
| 1,1-Dichloroethene, Percent | | 85 |
| 1,2-Dichloroethane, Percent | | 105 |
| 1,2-Dichlorobenzene, Percent | | 105 |
| 1,2-Dichloropropane, Percent | | 100 |
| 1,3-Dichlorobenzene, Percent | | 90 |
| 1,4-Dichlorobenzene, Percent | | 105 |
| 2-Chloroethylvinylether, Percent | | 80 |
| Acetone, Percent | | 45 |
| Acrolein, Percent | | 88 |
| Acrylonitrile, Percent | | 81 |
| Bromodichloromethane, Percent | | 85 |
| Bromomethane, Percent | | 80 |
| Benzene, Percent | | 95 |
| Bromoform, Percent | | 80 |
| Chlorobenzene, Percent | | 100 |
| Carbon Tetrachloride, Percent | | 90 |
| Chloroethane, Percent | | 80 |
| Chloroform, Percent | | 95 |
| Chloromethane, Percent | | 70 |
| Dibromochloromethane, Percent | | 90 |

Analytical Report

LOG NO: G90-04-440

Received: 20 APR 90
Reported: 08 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 16

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-440-18 | Laboratory Control Standard | |
| PARAMETER | | 04-440-18 |
| Ethylbenzene, Percent | 95 | |
| Methylene chloride, Percent | 160 | |
| Trichloroethene, Percent | 105 | |
| Trichlorofluoromethane, Percent | 210 | |
| Toluene, Percent | 100 | |
| Tetrachloroethene, Percent | 95 | |
| Vinyl chloride, Percent | 75 | |
| cis-1,3-Dichloropropene, Percent | 125 | |
| trans-1,2-Dichloroethene, Percent | 95 | |
| trans-1,3-Dichloropropene, Percent | 45 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Amended report due to incorrect detection limits reported for -1's 624 and incorrect methylene chloride detection limits for all samples.

L. Brack 05/17/90

Amended report due to incorrect 624 dilution factor for sample -10 and incorrect total DDTs for sample -11. L. Brack 05/24/90

Jeffrey A. Erion, Laboratory Manager

Analytical Report

LOG NO: G90-04-463

Received: 22 APR 90

Reported: 10 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 1

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|----------|-----------|
| PARAMETER | 04-463-1 | 04-463-2 | 04-463-3 | 04-463-4 | 04-463-5 | |
| 04-463-1 | MW-18 | | | | | 20 APR 90 |
| 04-463-2 | MW-1800 | | | | | 20 APR 90 |
| 04-463-3 | WB-1 | | | | | 20 APR 90 |
| 04-463-4 | MW-19 | | | | | 20 APR 90 |
| 04-463-5 | MW-8 | | | | | 20 APR 90 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | 04/27/90 | 04/27/90 | 04/27/90 | 04/27/90 | 04/27/90 | |
| Date Analyzed | 05/05/90 | 05/05/90 | 05/05/90 | 05/05/90 | 05/05/90 | |
| Dilution Factor, Times 1 | 1 | 1 | 1 | 1 | 1 | |
| Total BHC Isomers, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| Total DDT Metabolites, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDD, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDT, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDD, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDT, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, alpha isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, beta isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, delta isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |

Analytical Report

LOG NO: G90-04-463

Received: 22 APR 90

Reported: 10 MAY 90

Ms. Lanae Raymond
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3385 N. Campbell Ave., Suite 121
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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 2

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|----------|----------|----------|--|
| PARAMETER | 04-463-1 | 04-463-2 | 04-463-3 | 04-463-4 | 04-463-5 | |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | 05/01/90 | 05/01/90 | 04/30/90 | 05/01/90 | 05/01/90 | |
| Dilution Factor, Times 1 | 10 | 10 | 1 | 1 | 1 | |
| 1,1,1-Trichloroethane, ug/L | <10 | <10 | <1 | <1 | <1 | |
| 1,1,2,2-Tetrachloroethane, ug/L | <10 | <10 | <1 | <1 | <1 | |
| 1,1,2-Trichloroethane, ug/L | <10 | <10 | <1 | <1 | <1 | |
| 1,1-Dichloroethane, ug/L | <10 | <10 | <1 | <1 | <1 | |
| 1,1-Dichloroethene, ug/L | <10 | <10 | <1 | <1 | <1 | |
| 1,2-Dichloroethane, ug/L | <10 | <10 | <1 | <1 | <1 | |
| 1,2-Dichlorobenzene, ug/L | <10 | <10 | <1 | <1 | <1 | |
| 1,2-Dichloropropane, ug/L | <10 | <10 | <1 | <1 | <1 | |
| 1,3-Dichlorobenzene, ug/L | <10 | <10 | <1 | <1 | <1 | |
| 1,4-Dichlorobenzene, ug/L | <10 | <10 | <1 | <1 | <1 | |
| 2-Chloroethylvinylether, ug/L | <10 | <10 | <1 | <1 | <1 | |
| Acetone, ug/L | <100 | <100 | <10 | <10 | <10 | |
| Acrolein, ug/L | <200 | <200 | <20 | <20 | <20 | |
| Acrylonitrile, ug/L | <200 | <200 | <20 | <20 | <20 | |
| Bromodichloromethane, ug/L | <10 | <10 | <1 | <1 | <1 | |
| Bromomethane, ug/L | <10 | <10 | <1 | <1 | <1 | |
| Benzene, ug/L | <10 | <10 | <1 | <1 | <1 | |
| Bromoform, ug/L | <10 | <10 | <1 | <1 | <1 | |
| Chlorobenzene, ug/L | <10 | <10 | <1 | <1 | <1 | |
| Carbon Tetrachloride, ug/L | <10 | <10 | <1 | <1 | 2 | |

Analytical Report

LOG NO: G90-04-463

Received: 22 APR 90

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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 3

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|--------------------------------------|--|--------------|----------|----------|-----------|----------|
| PARAMETER | | 04-463-1 | 04-463-2 | 04-463-3 | 04-463-4 | 04-463-5 |
| 04-463-1 | MW-18 | | | | 20 APR 90 | |
| 04-463-2 | MW-1800 | | | | 20 APR 90 | |
| 04-463-3 | WB-1 | | | | 20 APR 90 | |
| 04-463-4 | MW-19 | | | | 20 APR 90 | |
| 04-463-5 | MW-8 | | | | 20 APR 90 | |
| Chloroethane, ug/L | | <10 | <10 | <1 | <1 | <1 |
| Chloroform, ug/L | | 110 | 110 | <1 | 56 | <1 |
| Chloromethane, ug/L | | <20 | <20 | <2 | <2 | <2 |
| Dibromochloromethane, ug/L | | <10 | <10 | <1 | <1 | <1 |
| Ethylbenzene, ug/L | | <10 | <10 | <1 | <1 | <1 |
| Methylene chloride, ug/L | | <20 | <20 | <2 | <2 | <2 |
| Trichloroethene, ug/L | 1000 | 1000 | | <1 | 24 | <1 |
| Trichlorofluoromethane, ug/L | | <10 | <10 | <1 | <1 | <1 |
| Toluene, ug/L | | <10 | <10 | <1 | <1 | <1 |
| Tetrachloroethene, ug/L | | <10 | <10 | <1 | <1 | <1 |
| Vinyl chloride, ug/L | | <10 | <10 | <1 | <1 | <1 |
| cis-1,3-Dichloropropene, ug/L | | <10 | <10 | <1 | <1 | <1 |
| trans-1,2-Dichloroethene, ug/L | | <10 | <10 | <1 | <1 | <1 |
| trans-1,3-Dichloropropene, ug/L | | <10 | <10 | <1 | <1 | <1 |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- | --- | --- | --- | --- |

Analytical Report

LOG NO: G90-04-463

Received: 22 APR 90
Reported: 10 MAY 90

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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 4

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|-----------|--|
| PARAMETER | 04-463-6 | 04-463-7 | 04-463-8 | 04-463-9 | 04-463-10 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | 05/07/90 | 04/27/90 | 04/27/90 | 04/27/90 | 04/27/90 | |
| Date Analyzed | 05/09/90 | 05/05/90 | 05/05/90 | 05/08/90 | 05/08/90 | |
| Dilution Factor, Times 1 | 1 | 10 | 1 | 1 | 1 | |
| Total BHC Isomers, ug/L | <8 | <0.4 | <0.04 | <0.04 | <0.04 | |
| Total DDT Metabolites, ug/L | 0.05 | <0.4 | <0.04 | <0.04 | <0.04 | |
| p,p'-DDD, ug/L | <0.04 | <0.4 | <0.04 | <0.04 | <0.04 | |
| p,p'-DDE, ug/L | <0.04 | <0.4 | <0.04 | <0.04 | <0.04 | |
| p,p'-DDT, ug/L | 0.05 | <0.4 | <0.04 | <0.04 | <0.04 | |
| o,p'-DDD, ug/L | <0.04 | <0.4 | <0.04 | <0.04 | <0.04 | |
| o,p'-DDE, ug/L | <0.04 | <0.4 | <0.04 | <0.04 | <0.04 | |
| o,p'-DDT, ug/L | <0.04 | <0.4 | <0.04 | <0.04 | <0.04 | |
| BHC, alpha isomer, ug/L | <8 | <0.4 | <0.04 | <0.04 | <0.04 | |
| BHC, beta isomer, ug/L | <8 | <0.4 | <0.04 | <0.04 | <0.04 | |
| BHC, delta isomer, ug/L | <8 | <0.4 | <0.04 | <0.04 | <0.04 | |
| BHC, gamma isomer (Lindane), ug/L | <8 | <0.4 | <0.04 | <0.04 | <0.04 | |

Analytical Report

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REPORT OF ANALYTICAL RESULTS

Page 5

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|----------|----------|-----------|--|
| PARAMETER | 04-463-6 | 04-463-7 | 04-463-8 | 04-463-9 | 04-463-10 | |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | 05/01/90 | 05/02/90 | 05/01/90 | 05/01/90 | 05/01/90 | |
| Dilution Factor, Times 1 | 1000 | 200 | 1 | 5 | 5 | |
| 1,1,1-Trichloroethane, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| 1,1,2,2-Tetrachloroethane, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| 1,1,2-Trichloroethane, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| 1,1-Dichloroethane, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| 1,1-Dichloroethene, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| 1,2-Dichloroethane, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| 1,2-Dichlorobenzene, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| 1,2-Dichloropropane, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| 1,3-Dichlorobenzene, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| 1,4-Dichlorobenzene, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| 2-Chloroethylvinylether, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| Acetone, ug/L | <10000 | <2000 | <10 | <50 | <50 | |
| Acrolein, ug/L | <20000 | <4000 | <20 | <100 | <100 | |
| Acrylonitrile, ug/L | <20000 | <4000 | <20 | <100 | <100 | |
| Bromodichloromethane, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| Bromomethane, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| Benzene, ug/L | <1000 | <200 | <1 | 10 | 9 | |
| Bromoform, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| Chlorobenzene, ug/L | 180000 | 31000 | <1 | 6 | 820 | |
| Carbon Tetrachloride, ug/L | <1000 | <200 | <1 | <5 | <5 | |

Analytical Report

LOG NO: G90-04-463

Received: 22 APR 90
Reported: 10 MAY 90

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 6

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|-----------|--|
| PARAMETER | 04-463-6 | 04-463-7 | 04-463-8 | 04-463-9 | 04-463-10 | |
| Chloroethane, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| Chloroform, ug/L | 74000 | <200 | <1 | 670 | 10 | |
| Chloromethane, ug/L | <2000 | <400 | <2 | <10 | <10 | |
| Dibromochloromethane, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| Ethylbenzene, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| Methylene chloride, ug/L | <2000 | <400 | <2 | <10 | <10 | |
| Trichloroethene, ug/L | <1000 | <200 | <1 | 30 | 8 | |
| Trichlorofluoromethane, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| Toluene, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| Tetrachloroethene, ug/L | <1000 | <200 | <1 | 20 | <5 | |
| Vinyl chloride, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| cis-1,3-Dichloropropene, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| trans-1,2-Dichloroethene, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| trans-1,3-Dichloropropene, ug/L | <1000 | <200 | <1 | <5 | <5 | |
| Other VOCs Method 624 (SOP MS 00188)--- | --- | --- | --- | --- | --- | |

Analytical Report

LOG NO: G90-04-463

Received: 22 APR 90

Reported: 10 MAY 90

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 7

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|-----------|-----------|-----------|----------|
| PARAMETER | 04-463-11 | 04-463-12 | 04-463-13 | 04-463-14 | 04-463-15 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | 04/27/90 | 04/27/90 | 04/27/90 | 04/27/90 | 04/27/90 | 04/27/90 |
| Date Analyzed | 05/08/90 | 05/08/90 | 05/08/90 | 05/08/90 | 05/08/90 | 05/08/90 |
| Dilution Factor, Times 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total BHC Isomers, ug/L | <0.04 | <0.8 | <0.04 | <0.8 | <0.8 | <0.8 |
| Total DDT Metabolites, ug/L | <0.04 | 0.3 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDD, ug/L | <0.04 | 0.2 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| p,p'-DDT, ug/L | <0.04 | 0.1 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDD, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| o,p'-DDT, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 |
| BHC, alpha isomer, ug/L | <0.04 | <0.2 | <0.04 | <0.8 | <0.8 | <0.8 |
| BHC, beta isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.8 | <0.8 | <0.8 |
| BHC, delta isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.8 |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | <0.04 | <0.04 | <0.04 | <0.04 | <0.8 |

Analytical Report

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REPORT OF ANALYTICAL RESULTS

Page 8

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|-----------|-----------|-----------|-----------|
| PARAMETER | | 04-463-11 | 04-463-12 | 04-463-13 | 04-463-14 | 04-463-15 |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | 05/02/90 | 05/02/90 | 05/01/90 | 05/01/90 | 05/02/90 | |
| Dilution Factor, Times 1 | 50 | 100 | 10 | 10 | 50 | |
| 1,1,1-Trichloroethane, ug/L | <50 | <100 | <10 | <10 | <50 | |
| 1,1,2,2-Tetrachloroethane, ug/L | <50 | <100 | <10 | <10 | <50 | |
| 1,1,2-Trichloroethane, ug/L | <50 | <100 | <10 | <10 | <50 | |
| 1,1-Dichloroethane, ug/L | <50 | <100 | <10 | <10 | <50 | |
| 1,1-Dichloroethene, ug/L | <50 | <100 | <10 | <10 | <50 | |
| 1,2-Dichloroethane, ug/L | <50 | <100 | <10 | <10 | <50 | |
| 1,2-Dichlorobenzene, ug/L | <50 | <100 | <10 | <10 | <50 | |
| 1,2-Dichloropropane, ug/L | <50 | <100 | <10 | <10 | <50 | |
| 1,3-Dichlorobenzene, ug/L | <50 | <100 | <10 | <10 | <50 | |
| 1,4-Dichlorobenzene, ug/L | <50 | <100 | <10 | <10 | 80 | |
| 2-Chloroethylvinylether, ug/L | <50 | <100 | <10 | <10 | <50 | |
| Acetone, ug/L | <500 | <1000 | <100 | <100 | <500 | |
| Acrolein, ug/L | <1000 | <2000 | <200 | <200 | <1000 | |
| Acrylonitrile, ug/L | <1000 | <2000 | <200 | <200 | <1000 | |
| Bromodichloromethane, ug/L | <50 | <100 | <10 | <10 | <50 | |
| Bromomethane, ug/L | <50 | <100 | <10 | <10 | <50 | |
| Benzene, ug/L | <50 | <100 | <10 | <10 | 690 | |
| Bromoform, ug/L | <50 | <100 | <10 | <10 | <50 | |
| Chlorobenzene, ug/L | 4700 | 9000 | 230 | 500 | 7000 | |
| Carbon Tetrachloride, ug/L | <50 | <100 | <10 | <10 | 530 | |

Analytical Report

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Received: 22 APR 90
Reported: 10 MAY 90

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CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 9

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|--------------------------------------|--|--------------|-----------|-----------|-----------|-----------|
| PARAMETER | | 04-463-11 | 04-463-12 | 04-463-13 | 04-463-14 | 04-463-15 |
| Chloroethane, ug/L | <50 | <100 | <10 | <10 | <10 | <50 |
| Chloroform, ug/L | <50 | <100 | <10 | 10 | 4700 | |
| Chloromethane, ug/L | <100 | <200 | <20 | <20 | <100 | |
| Dibromochloromethane, ug/L | <50 | <100 | <10 | <10 | <50 | |
| Ethylbenzene, ug/L | <50 | <100 | <10 | <10 | <50 | |
| Methylene chloride, ug/L | <100 | <200 | <20 | <20 | <100 | |
| Trichloroethene, ug/L | <50 | 100 | <10 | <10 | 200 | |
| Trichlorofluoromethane, ug/L | <50 | <100 | <10 | <10 | <50 | |
| Toluene, ug/L | <50 | <100 | <10 | <10 | <50 | |
| Tetrachloroethene, ug/L | <50 | <100 | <10 | 260 | 2800 | |
| Vinyl chloride, ug/L | <50 | <100 | <10 | <10 | <50 | |
| cis-1,3-Dichloropropene, ug/L | <50 | <100 | <10 | <10 | <50 | |
| trans-1,2-Dichloroethene, ug/L | <50 | <100 | <10 | <10 | <50 | |
| trans-1,3-Dichloropropene, ug/L | <50 | <100 | <10 | <10 | <50 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- | --- | --- | --- | |

Analytical Report

LOG NO: G90-04-463

Received: 22 APR 90
Reported: 10 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Suite 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | |
|---|--|--------------|-----------|
| 04-463-16 | MW-7 | | 20 APR 90 |
| 04-463-17 | MW-1 | | 20 APR 90 |
| PARAMETER | | 04-463-16 | 04-463-17 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | |
| Date Extracted | | 04/27/90 | 04/27/90 |
| Date Analyzed | | 05/08/90 | 05/08/90 |
| Dilution Factor, Times 1 | | 1 | 200 |
| Total BHC Isomers, ug/L | <0.8 | 120 | |
| Total DDT Metabolites, ug/L | <0.04 | <8 | |
| p,p'-DDD, ug/L | <0.04 | <8 | |
| p,p'-DDE, ug/L | <0.04 | <8 | |
| p,p'-DDT, ug/L | <0.04 | <8 | |
| o,p'-DDD, ug/L | <0.04 | <8 | |
| o,p'-DDE, ug/L | <0.04 | <8 | |
| o,p'-DDT, ug/L | <0.04 | <8 | |
| BHC, alpha isomer, ug/L | <0.8 | 30 | |
| BHC, beta isomer, ug/L | <0.8 | 20 | |
| BHC, delta isomer, ug/L | <0.8 | 10 | |
| BHC, gamma isomer (Lindane), ug/L | <0.8 | 60 | |

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | |
|---------------------------------|--|--------------|-----------|
| 04-463-16 | MW-7 | | 20 APR 90 |
| 04-463-17 | MW-1 | | 20 APR 90 |
| PARAMETER | | 04-463-16 | 04-463-17 |
| VOCs Method 624 (SOP MS 00188) | | | |
| Date Analyzed | | 05/02/90 | 05/02/90 |
| Dilution Factor, Times 1 | | 200 | 500 |
| 1,1,1-Trichloroethane, ug/L | | <200 | <500 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <200 | <500 |
| 1,1,2-Trichloroethane, ug/L | | <200 | <500 |
| 1,1-Dichloroethane, ug/L | | <200 | <500 |
| 1,1-Dichloroethene, ug/L | | <200 | <500 |
| 1,2-Dichloroethane, ug/L | | 3900 | <500 |
| 1,2-Dichlorobenzene, ug/L | | <200 | <500 |
| 1,2-Dichloropropane, ug/L | | <200 | <500 |
| 1,3-Dichlorobenzene, ug/L | | <200 | <500 |
| 1,4-Dichlorobenzene, ug/L | | <200 | <500 |
| 2-Chloroethylvinylether, ug/L | | <200 | <500 |
| Acetone, ug/L | | <2000 | <5000 |
| Acrolein, ug/L | | <4000 | <10000 |
| Acrylonitrile, ug/L | | <4000 | <10000 |
| Bromodichloromethane, ug/L | | <200 | <500 |
| Bromomethane, ug/L | | <200 | <500 |
| Benzene, ug/L | | 27000 | 8500 |
| Bromoform, ug/L | | <200 | <500 |
| Chlorobenzene, ug/L | | <200 | 38000 |
| Carbon Tetrachloride, ug/L | | <200 | <500 |
| Chloroethane, ug/L | | <200 | <500 |
| Chloroform, ug/L | | 800 | 11000 |
| Chloromethane, ug/L | | <400 | <1000 |

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|--|------------------------|
| 04-463-16 | MW-7 | 20 APR 90 |
| 04-463-17 | MW-1 | 20 APR 90 |
| PARAMETER | | 04-463-16 04-463-17 |
| Dibromochloromethane, ug/L | <200 | <500 |
| Ethylbenzene, ug/L | 2800 | <500 |
| Methylene chloride, ug/L | <400 | <1000 |
| Trichloroethene, ug/L | <200 | <500 |
| Trichlorofluoromethane, ug/L | <200 | <500 |
| Toluene, ug/L | 36000 | <500 |
| Tetrachloroethene, ug/L | <200 | 4000 |
| Vinyl chloride, ug/L | <200 | <500 |
| cis-1,3-Dichloropropene, ug/L | <200 | <500 |
| trans-1,2-Dichloroethene, ug/L | <200 | <500 |
| trans-1,3-Dichloropropene, ug/L | <200 | <500 |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- |
| Semi-Quantified Results ** | | |
| Total Xylene Isomers, ug/L | 20000 | --- |

** Quantification based upon comparison of total ion count of the compound with that of the nearest internal standard.

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED | | |
|---|---|--------------|-----------|-----------|
| PARAMETER | | 04-463-18 | 04-463-19 | 04-463-23 |
| 04-463-18 | TB-1 | | | 20 APR 90 |
| 04-463-19 | TB-2 | | | 20 APR 90 |
| 04-463-23 | Laboratory Blank | | | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | |
| Date Extracted | | --- | --- | 04/27/90 |
| Date Analyzed | | --- | --- | 05/05/90 |
| Dilution Factor, Times 1 | | --- | --- | 1 |
| Total BHC Isomers, ug/L | | --- | --- | <0.04 |
| Total DDT Metabolites, ug/L | | --- | --- | <0.04 |
| p,p'-DDD, ug/L | | --- | --- | <0.04 |
| p,p'-DDE, ug/L | | --- | --- | <0.04 |
| p,p'-DDT, ug/L | | --- | --- | <0.04 |
| o,p'-DDD, ug/L | | --- | --- | <0.04 |
| o,p'-DDE, ug/L | | --- | --- | <0.04 |
| o,p'-DDT, ug/L | | --- | --- | <0.04 |
| BHC, alpha isomer, ug/L | | --- | --- | <0.04 |
| BHC, beta isomer, ug/L | | --- | --- | <0.04 |
| BHC, delta isomer, ug/L | | --- | --- | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | | --- | --- | <0.04 |

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED | | |
|---------------------------------|---|--------------|-----------|-----------|
| PARAMETER | | 04-463-18 | 04-463-19 | 04-463-23 |
| VOCs Method 624 (SOP MS 00188) | | | | |
| Date Analyzed | | 04/30/90 | 04/30/90 | 05/01/90 |
| Dilution Factor, Times 1 | | 1 | 1 | 1 |
| 1,1,1-Trichloroethane, ug/L | | <1 | <1 | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 | <1 | <1 |
| 1,1,2-Trichloroethane, ug/L | | <1 | <1 | <1 |
| 1,1-Dichloroethane, ug/L | | <1 | <1 | <1 |
| 1,1-Dichloroethene, ug/L | | <1 | <1 | <1 |
| 1,2-Dichloroethane, ug/L | | <1 | <1 | <1 |
| 1,2-Dichlorobenzene, ug/L | | <1 | <1 | <1 |
| 1,2-Dichloropropane, ug/L | | <1 | <1 | <1 |
| 1,3-Dichlorobenzene, ug/L | | <1 | <1 | <1 |
| 1,4-Dichlorobenzene, ug/L | | <1 | <1 | <1 |
| 2-Chloroethylvinylether, ug/L | | <1 | <1 | <1 |
| Acetone, ug/L | | <10 | <10 | <10 |
| Acrolein, ug/L | | <20 | <20 | <20 |
| Acrylonitrile, ug/L | | <20 | <20 | <20 |
| Bromodichloromethane, ug/L | | <1 | <1 | <1 |
| Bromomethane, ug/L | | <1 | <1 | <1 |
| Benzene, ug/L | | <1 | <1 | <1 |
| Bromoform, ug/L | | <1 | <1 | <1 |
| Chlorobenzene, ug/L | | <1 | <1 | <1 |
| Carbon Tetrachloride, ug/L | | <1 | <1 | <1 |
| Chloroethane, ug/L | | <1 | <1 | <1 |
| Chloroform, ug/L | | <1 | <1 | <1 |

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED | | |
|--------------------------------------|---|--------------|-----------|-----------|
| PARAMETER | | 04-463-18 | 04-463-19 | 04-463-23 |
| 04-463-18 | TB-1 | | | 20 APR 90 |
| 04-463-19 | TB-2 | | | 20 APR 90 |
| 04-463-23 | Laboratory Blank | | | |
| Chloromethane, ug/L | | <2 | <2 | <2 |
| Dibromochloromethane, ug/L | | <1 | <1 | <1 |
| Ethylbenzene, ug/L | | <1 | <1 | <1 |
| Methylene chloride, ug/L | | <2 | <2 | <2 |
| Trichloroethene, ug/L | | <1 | <1 | <1 |
| Trichlorofluoromethane, ug/L | | <1 | <1 | <1 |
| Toluene, ug/L | | <1 | <1 | <1 |
| Tetrachloroethene, ug/L | | <1 | <1 | <1 |
| Vinyl chloride, ug/L | | <1 | <1 | <1 |
| cis-1,3-Dichloropropene, ug/L | | <1 | <1 | <1 |
| trans-1,2-Dichloroethene, ug/L | | <1 | <1 | <1 |
| trans-1,3-Dichloropropene, ug/L | | <1 | <1 | <1 |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- | --- |

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, MATRIX SPIKE SAMPLES | DATE SAMPLED | |
|---|--|--------------|-----------|
| 04-463-20 | MW-18 (BC/QC SPK) | 20 | APR 90 |
| 04-463-21 | MW-18 (BC/QC DUP-SPK) | 20 | APR 90 |
| PARAMETER | | 04-463-20 | 04-463-21 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | 04/27/90 | 04/27/90 |
| Date Extracted | | 04/27/90 | 04/27/90 |
| Date Analyzed | | 05/05/90 | 05/05/90 |
| Dilution Factor, Times 1 | | 1 | 1 |
| p,p'-DDT, Percent | | 110 | 110 |
| BHC, gamma isomer (Lindane), Percent | | 78 | 75 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- | --- |
| VOCs Method 624 (SOP MS 00188) | | 05/01/90 | 05/01/90 |
| Date Analyzed | | 05/01/90 | 05/01/90 |
| Dilution Factor, Times 1 | | 10 | 10 |
| 1,1-Dichloroethene, Percent | | 94 | 97 |
| Benzene, Percent | | 95 | 99 |
| Chlorobenzene, Percent | | 95 | 98 |
| Trichloroethene, Percent | | 100 | 110 |
| Toluene, Percent | | 91 | 94 |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- |

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-463-22 | Laboratory Control Standard | |
| PARAMETER | | 04-463-22 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/27/90 |
| Date Analyzed | | 05/05/90 |
| Dilution Factor, Times 1 | | 1 |
| p,p'-DDD, Percent | | 48 |
| p,p'-DDE, Percent | | 63 |
| p,p'-DDT, Percent | | 61 |
| BHC, alpha isomer, Percent | | 44 |
| BHC, beta isomer, Percent | | 49 |
| BHC, delta isomer, Percent | | 32 |
| BHC, gamma isomer (Lindane), Percent | | 41 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- |

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|------------------------------------|---|--------------|
| 04-463-22 | Laboratory Control Standard | |
| PARAMETER | | 04-463-22 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 05/01/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, Percent | | 85 |
| 1,1,2,2-Tetrachloroethane, Percent | | 95 |
| 1,1,2-Trichloroethane, Percent | | 110 |
| 1,1-Dichloroethane, Percent | | 90 |
| 1,1-Dichloroethene, Percent | | 80 |
| 1,2-Dichloroethane, Percent | | 100 |
| 1,2-Dichlorobenzene, Percent | | 100 |
| 1,2-Dichloropropane, Percent | | 95 |
| 1,3-Dichlorobenzene, Percent | | 95 |
| 1,4-Dichlorobenzene, Percent | | 95 |
| 2-Chloroethylvinylether, Percent | | 90 |
| Acetone, Percent | | 110 |
| Acrolein, Percent | | 91 |
| Acrylonitrile, Percent | | 96 |
| Bromodichloromethane, Percent | | 90 |
| Bromomethane, Percent | | 85 |
| Benzene, Percent | | 95 |
| Bromoform, Percent | | 75 |
| Chlorobenzene, Percent | | 100 |
| Carbon Tetrachloride, Percent | | 90 |
| Chloroethane, Percent | | 78 |
| Chloroform, Percent | | 100 |
| Chloromethane, Percent | | 45 |
| Dibromochloromethane, Percent | | 95 |

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-463-22 | Laboratory Control Standard | 04-463-22 |
| PARAMETER | | |
| Ethylbenzene, Percent | 90 | |
| Methylene chloride, Percent | 170 | |
| Trichloroethene, Percent | 90 | |
| Trichlorofluoromethane, Percent | 80 | |
| Toluene, Percent | 90 | |
| Tetrachloroethene, Percent | 80 | |
| Vinyl chloride, Percent | 50 | |
| cis-1,3-Dichloropropene, Percent | 75 | |
| trans-1,2-Dichloroethene, Percent | 90 | |
| trans-1,3-Dichloropropene, Percent | 80 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Samples MW-9 and BF-4 were diluted due to matrix interferences. Sample MW-9 was re-extracted after the holding time had exceeded for 608 analysis. The sample concentrator tube broke during sample preparation. L. Brack 05/10/90

Jeffrey A. Erion
Jeffrey A. Erion, Laboratory Manager

Analytical Report

AMENDED REPORT

5-24-90

LOG NO: G90-04-464

Received: 22 APR 90
Reported: 10 MAY 90

Ms. Lanae Raymond
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AMENDED REPORT

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 1

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|----------|-----------|
| 04-464-1 | G-5 | | | | | 21 APR 90 |
| 04-464-2 | G-500 | | | | | 21 APR 90 |
| 04-464-3 | WB-1 | | | | | 21 APR 90 |
| 04-464-4 | BF-6 | | | | | 21 APR 90 |
| 04-464-5 | MW-13 | | | | | 21 APR 90 |
| PARAMETER | 04-464-1 | 04-464-2 | 04-464-3 | 04-464-4 | 04-464-5 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | | | |
| Date Extracted | 04/22/90 | 04/22/90 | 04/22/90 | 04/26/90 | 04/22/90 | |
| Date Analyzed | 05/05/90 | 05/05/90 | 05/05/90 | 05/08/90 | 05/05/90 | |
| Dilution Factor, Times 1 | 1 | 1 | 1 | 5 | 1 | |
| Total BHC Isomers, ug/L | <0.04 | <0.04 | <0.04 | 1.2 | 0.38 | |
| Total DDT Metabolites, ug/L | <0.04 | <0.04 | <0.04 | <0.2 | <0.04 | |
| p,p'-DDD, ug/L | <0.04 | <0.04 | <0.04 | <0.2 | <0.04 | |
| p,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | <0.2 | <0.04 | |
| p,p'-DDT, ug/L | <0.04 | <0.04 | <0.04 | <0.2 | <0.04 | |
| o,p'-DDD, ug/L | <0.04 | <0.04 | <0.04 | <0.2 | <0.04 | |
| o,p'-DDE, ug/L | <0.04 | <0.04 | <0.04 | <0.2 | <0.04 | |
| o,p'-DDT, ug/L | <0.04 | <0.04 | <0.04 | <0.2 | <0.04 | |
| BHC, alpha isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.2 | 0.19 | |
| BHC, beta isomer, ug/L | <0.04 | <0.04 | <0.04 | <0.2 | 0.13 | |
| BHC, delta isomer, ug/L | <0.04 | <0.04 | <0.04 | 0.2 | <0.04 | |
| BHC, gamma isomer (Lindane), ug/L | <0.04 | <0.04 | <0.04 | 1 | 0.06 | |

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---------------------------------|--|--------------|----------|----------|----------|--|
| PARAMETER | 04-464-1 | 04-464-2 | 04-464-3 | 04-464-4 | 04-464-5 | |
| VOCs Method 624 (SOP MS 00188) | | | | | | |
| Date Analyzed | 05/01/90 | 05/01/90 | 05/01/90 | 05/01/90 | 05/01/90 | |
| Dilution Factor, Times 1 | 250 | 250 | 1 | 200 | 200 | |
| 1,1,1-Trichloroethane, ug/L | <250 | <250 | <1 | <200 | <200 | |
| 1,1,2,2-Tetrachloroethane, ug/L | <250 | <250 | <1 | <200 | <200 | |
| 1,1,2-Trichloroethane, ug/L | <250 | <250 | <1 | <200 | <200 | |
| 1,1-Dichloroethane, ug/L | <250 | <250 | <1 | <200 | <200 | |
| 1,1-Dichloroethene, ug/L | <250 | <250 | <1 | <200 | <200 | |
| 1,2-Dichloroethane, ug/L | <250 | <250 | <1 | <200 | 500 | |
| 1,2-Dichlorobenzene, ug/L | <250 | <250 | <1 | <200 | <200 | |
| 1,2-Dichloropropane, ug/L | <250 | <250 | <1 | <200 | <200 | |
| 1,3-Dichlorobenzene, ug/L | <250 | <250 | <1 | <200 | <200 | |
| 1,4-Dichlorobenzene, ug/L | <250 | <250 | <1 | <200 | <200 | |
| 2-Chloroethylvinylether, ug/L | <250 | <250 | <1 | <200 | <200 | |
| Acetone, ug/L | <2500 | <2500 | <10 | <2000 | <2000 | |
| Acrolein, ug/L | <5000 | <5000 | <20 | <4000 | <4000 | |
| Acrylonitrile, ug/L | <5000 | <5000 | <20 | <4000 | <4000 | |
| Bromodichloromethane, ug/L | <250 | <250 | <1 | <200 | <200 | |
| Bromomethane, ug/L | <250 | <250 | <1 | <200 | <200 | |
| Benzene, ug/L | <250 | <250 | <1 | 200 | 19000 | |
| Bromoform, ug/L | <250 | <250 | <1 | <200 | <200 | |
| Chlorobenzene, ug/L | 14000 | 14000 | <1 | 27000 | 2600 | |
| Carbon Tetrachloride, ug/L | <250 | <250 | <1 | <200 | <200 | |

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REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | | | |
|---|--|--------------|----------|----------|-----------|----------|
| PARAMETER | | 04-464-1 | 04-464-2 | 04-464-3 | 04-464-4 | 04-464-5 |
| 04-464-1 | G-5 | | | | 21 APR 90 | |
| 04-464-2 | G-500 | | | | 21 APR 90 | |
| 04-464-3 | WB-1 | | | | 21 APR 90 | |
| 04-464-4 | BF-6 | | | | 21 APR 90 | |
| 04-464-5 | MW-13 | | | | 21 APR 90 | |
| Chloroethane, ug/L | <250 | <250 | <1 | <200 | <200 | |
| Chloroform, ug/L | <250 | <250 | <1 | <200 | 900 | |
| Chloromethane, ug/L | <500 | <500 | <2 | <400 | <400 | |
| Dibromochloromethane, ug/L | <250 | <250 | <1 | <200 | <200 | |
| Ethylbenzene, ug/L | <250 | <250 | <1 | <200 | 1800 | |
| Methylene chloride, ug/L | <500 | <500 | <2 | <400 | <400 | |
| Trichloroethene, ug/L | <250 | <250 | <1 | <200 | 500 | |
| Trichlorofluoromethane, ug/L | <250 | <250 | <1 | <200 | <200 | |
| Toluene, ug/L | <250 | <250 | <1 | <200 | 12000 | |
| Tetrachloroethene, ug/L | <250 | <250 | <1 | <200 | <200 | |
| Vinyl chloride, ug/L | <250 | <250 | <1 | <200 | <200 | |
| cis-1,3-Dichloropropene, ug/L | <250 | <250 | <1 | <200 | <200 | |
| trans-1,2-Dichloroethene, ug/L | <250 | <250 | <1 | <200 | <200 | |
| trans-1,3-Dichloropropene, ug/L | <250 | <250 | <1 | <200 | <200 | |
| Other VOCs Method 624 (SOP MS 00188)--- | --- | --- | --- | --- | --- | |
| Semi-Quantified Results ** | | | | | | |
| Total Xylene Isomers, ug/L | --- | --- | --- | --- | --- | 8300 |

** Quantification based upon comparison of total ion count of the compound with that of the nearest internal standard.

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Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 4

| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | |
|---|--|--------------|-----------|----------|
| PARAMETER | | 04-464-6 | 04-464-7 | 04-464-8 |
| 04-464-6 | LW-2 | | 21 APR 90 | |
| 04-464-7 | G-2 | | 21 APR 90 | |
| 04-464-8 | MW-5 | | 21 APR 90 | |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | | |
| Date Extracted | | 04/22/90 | 04/26/90 | 04/26/90 |
| Date Analyzed | | 05/05/90 | 05/08/90 | 05/08/90 |
| Dilution Factor, Times 1 | | 1 | 1 | 20 |
| Total BHC Isomers, ug/L | | <0.04 | <0.04 | <0.8 |
| Total DDT Metabolites, ug/L | | <0.04 | 0.06 | <0.8 |
| p,p'-DDD, ug/L | | <0.04 | <0.04 | <0.8 |
| p,p'-DDE, ug/L | | <0.04 | 0.06 | <0.8 |
| p,p'-DDT, ug/L | | <0.04 | <0.04 | <0.8 |
| o,p'-DDD, ug/L | | <0.04 | <0.04 | <0.8 |
| o,p'-DDE, ug/L | | <0.04 | <0.04 | <0.8 |
| o,p'-DDT, ug/L | | <0.04 | <0.04 | <0.8 |
| BHC, alpha isomer, ug/L | | <0.04 | <0.04 | <0.8 |
| BHC, beta isomer, ug/L | | <0.04 | <0.04 | <0.8 |
| BHC, delta isomer, ug/L | | <0.04 | <0.04 | <0.8 |
| BHC, gamma isomer (Lindane), ug/L | | <0.04 | <0.04 | <0.8 |

Analytical Report

LOG NO: G90-04-464

Received: 22 APR 90

Reported: 10 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | |
|---------------------------------|--|--------------|-----------|----------|
| PARAMETER | | 04-464-6 | 04-464-7 | 04-464-8 |
| 04-464-6 | LW-2 | | 21 APR 90 | |
| 04-464-7 | G-2 | | 21 APR 90 | |
| 04-464-8 | MW-5 | | 21 APR 90 | |
| VOCs Method 624 (SOP MS 00188) | | | | |
| Date Analyzed | | 05/01/90 | 05/01/90 | 05/01/90 |
| Dilution Factor, Times 1 | | 1 | 250 | 250 |
| 1,1,1-Trichloroethane, ug/L | | <1 | <250 | <250 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 | <250 | <250 |
| 1,1,2-Trichloroethane, ug/L | | <1 | <250 | <250 |
| 1,1-Dichloroethane, ug/L | | <1 | <250 | <250 |
| 1,1-Dichloroethene, ug/L | | <1 | <250 | <250 |
| 1,2-Dichloroethane, ug/L | | <1 | <250 | <250 |
| 1,2-Dichlorobenzene, ug/L | | <1 | <250 | <250 |
| 1,2-Dichloropropane, ug/L | | <1 | <250 | <250 |
| 1,3-Dichlorobenzene, ug/L | | <1 | <250 | <250 |
| 1,4-Dichlorobenzene, ug/L | | <1 | <250 | <250 |
| 2-Chloroethylvinylether, ug/L | | <1 | <250 | <250 |
| Acetone, ug/L | | <10 | <2500 | <2500 |
| Acrolein, ug/L | | <20 | <5000 | <5000 |
| Acrylonitrile, ug/L | | <20 | <5000 | <5000 |
| Bromodichloromethane, ug/L | | <1 | <250 | <250 |
| Bromomethane, ug/L | | <1 | <250 | <250 |
| Benzene, ug/L | | <1 | <250 | 800 |
| Bromoform, ug/L | | <1 | <250 | <250 |
| Chlorobenzene, ug/L | | <1 | 9600 | 34000 |
| Carbon Tetrachloride, ug/L | | <1 | <250 | <250 |
| Chloroethane, ug/L | | <1 | <250 | <250 |
| Chloroform, ug/L | | <1 | <250 | 18000 |

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Project: 218.2

REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, GROUND WATER SAMPLES | DATE SAMPLED | | |
|--------------------------------------|--|--------------|-----------|----------|
| PARAMETER | | 04-464-6 | 04-464-7 | 04-464-8 |
| 04-464-6 | LW-2 | | 21 APR 90 | |
| 04-464-7 | G-2 | | 21 APR 90 | |
| 04-464-8 | MW-5 | | 21 APR 90 | |
| Chloromethane, ug/L | | <2 | <500 | <500 |
| Dibromochloromethane, ug/L | | <1 | <250 | <250 |
| Ethylbenzene, ug/L | | <1 | <250 | <250 |
| Methylene chloride, ug/L | | <2 | <500 | <500 |
| Trichloroethene, ug/L | | <1 | <250 | <250 |
| Trichlorofluoromethane, ug/L | | <1 | <250 | <250 |
| Toluene, ug/L | | <1 | <250 | <250 |
| Tetrachloroethene, ug/L | | <1 | <250 | 400 |
| Vinyl chloride, ug/L | | <1 | <250 | <250 |
| cis-1,3-Dichloropropene, ug/L | | <1 | <250 | <250 |
| trans-1,2-Dichloroethene, ug/L | | <1 | <250 | <250 |
| trans-1,3-Dichloropropene, ug/L | | <1 | <250 | <250 |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- | --- |

Analytical Report

LOG NO: G90-04-464

Received: 22 APR 90

Reported: 10 MAY 90

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Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-464-9 | TB-1 | 21 APR 90 |
| 04-464-13 | Laboratory Blank | |
| PARAMETER | 04-464-9 | 04-464-13 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | --- | 04/26/90 |
| Date Analyzed | --- | 05/08/90 |
| Dilution Factor, Times 1 | --- | 1 |
| Total BHC Isomers, ug/L | --- | <0.04 |
| Total DDT Metabolites, ug/L | --- | <0.04 |
| p,p'-DDD, ug/L | --- | <0.04 |
| p,p'-DDE, ug/L | --- | <0.04 |
| p,p'-DDT, ug/L | --- | <0.04 |
| o,p'-DDD, ug/L | --- | <0.04 |
| o,p'-DDE, ug/L | --- | <0.04 |
| o,p'-DDT, ug/L | --- | <0.04 |
| BHC, alpha isomer, ug/L | --- | <0.04 |
| BHC, beta isomer, ug/L | --- | <0.04 |
| BHC, delta isomer, ug/L | --- | <0.04 |
| BHC, gamma isomer (Lindane), ug/L | --- | <0.04 |

Analytical Report

LOG NO: G90-04-464

Received: 22 APR 90

Reported: 10 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 8

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED | |
|---------------------------------|---|--------------|-----------|
| PARAMETER | | 04-464-9 | 04-464-13 |
| VOCs Method 624 (SOP MS 00188) | | | |
| Date Analyzed | | 05/01/90 | 05/01/90 |
| Dilution Factor, Times 1 | | 1 | 1 |
| 1,1,1-Trichloroethane, ug/L | | <1 | <1 |
| 1,1,2,2-Tetrachloroethane, ug/L | | <1 | <1 |
| 1,1,2-Trichloroethane, ug/L | | <1 | <1 |
| 1,1-Dichloroethane, ug/L | | <1 | <1 |
| 1,1-Dichloroethene, ug/L | | <1 | <1 |
| 1,2-Dichloroethane, ug/L | | <1 | <1 |
| 1,2-Dichlorobenzene, ug/L | | <1 | <1 |
| 1,2-Dichloropropane, ug/L | | <1 | <1 |
| 1,3-Dichlorobenzene, ug/L | | <1 | <1 |
| 1,4-Dichlorobenzene, ug/L | | <1 | <1 |
| 2-Chloroethylvinylether, ug/L | | <1 | <1 |
| Acetone, ug/L | | <10 | <10 |
| Acrolein, ug/L | | <20 | <20 |
| Acrylonitrile, ug/L | | <20 | <20 |
| Bromodichloromethane, ug/L | | <1 | <1 |
| Bromomethane, ug/L | | <1 | <1 |
| Benzene, ug/L | | <1 | <1 |
| Bromoform, ug/L | | <1 | <1 |
| Chlorobenzene, ug/L | | <1 | <1 |
| Carbon Tetrachloride, ug/L | | <1 | <1 |
| Chloroethane, ug/L | | <1 | <1 |
| Chloroform, ug/L | | <1 | <1 |
| Chloromethane, ug/L | | <2 | <2 |

Analytical Report

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Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 9

| LOG NO | SAMPLE DESCRIPTION, BLANK WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-464-9 | TB-1 | 21 APR 90 |
| 04-464-13 | Laboratory Blank | |
| PARAMETER | 04-464-9 | 04-464-13 |
| Dibromochloromethane, ug/L | <1 | <1 |
| Ethylbenzene, ug/L | <1 | <1 |
| Methylene chloride, ug/L | <2 | <2 |
| Trichloroethene, ug/L | <1 | <1 |
| Trichlorofluoromethane, ug/L | <1 | <1 |
| Toluene, ug/L | <1 | <1 |
| Tetrachloroethene, ug/L | <1 | <1 |
| Vinyl chloride, ug/L | <1 | <1 |
| cis-1,3-Dichloropropene, ug/L | <1 | <1 |
| trans-1,2-Dichloroethene, ug/L | <1 | <1 |
| trans-1,3-Dichloropropene, ug/L | <1 | <1 |
| Other VOCs Method 624 (SOP MS 00188) | --- | --- |

Analytical Report

LOG NO: G90-04-464

Received: 22 APR 90

Reported: 10 MAY 90

Ms. Lanae Raymond
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3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 10

| LOG NO | SAMPLE DESCRIPTION, MATRIX SPIKE SAMPLES | DATE SAMPLED | |
|---|--|--------------|-----------|
| 04-464-10 | G-5 (BC/QC SPK) | 21 | APR 90 |
| 04-464-11 | G-5 (BC/QC DUP-SPK) | 21 | APR 90 |
| PARAMETER | | 04-464-10 | 04-464-11 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | | |
| Date Extracted | | 04/22/90 | 04/22/90 |
| Date Analyzed | | 05/05/90 | 05/05/90 |
| Dilution Factor, Times 1 | | 1 | 1 |
| p,p'-DDD, ug/L | | 130 | 130 |
| BHC, gamma isomer (Lindane), ug/L | | 64 | 50 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- | --- |
| VOCs Method 624 (SOP MS 00188) | | | |
| Date Analyzed | | 05/01/90 | 05/01/90 |
| Dilution Factor, Times 1 | | 250 | 250 |
| 1,1-Dichloroethene, Percent | | 59 | 61 |
| Benzene, Percent | | 82 | 85 |
| Chlorobenzene, Percent | | 95 | 107 |
| Trichloroethene, Percent | | 80 | 80 |
| Toluene, Percent | | 79 | 85 |
| Other VOCs Method 624 (SOP MS 00188) | | --- | --- |

Analytical Report

LOG NO: G90-04-464

Received: 22 APR 90

Reported: 10 MAY 90

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3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 11

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|---|---|--------------|
| 04-464-12 | Laboratory Control Standard | |
| PARAMETER | | 04-464-12 |
| DDT/BHCs Method 608/8080 (SOP GC 00588) | | |
| Date Extracted | | 04/22/90 |
| Date Analyzed | | 05/05/90 |
| Dilution Factor, Times 1 | | 1 |
| p,p'-DDD, ug/L | | 36 |
| p,p'-DDE, ug/L | | 50 |
| p,p'-DDT, ug/L | | 56 |
| BHC, alpha isomer, ug/L | | 27 |
| BHC, beta isomer, ug/L | | 45 |
| BHC, delta isomer, ug/L | | 39 |
| BHC, gamma isomer (Lindane), ug/L | | 29 |
| Other DDT/BHCs Method 608/8080 (SOP GC 00588) | | --- |

Analytical Report

LOG NO: G90-04-464

Received: 22 APR 90

Reported: 10 MAY 90

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Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

Page 12

| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|------------------------------------|---|--------------|
| 04-464-12 | Laboratory Control Standard | |
| PARAMETER | | 04-464-12 |
| VOCs Method 624 (SOP MS 00188) | | |
| Date Analyzed | | 05/01/90 |
| Dilution Factor, Times 1 | | 1 |
| 1,1,1-Trichloroethane, Percent | | 75 |
| 1,1,2,2-Tetrachloroethane, Percent | | 110 |
| 1,1,2-Trichloroethane, Percent | | 115 |
| 1,1-Dichloroethane, Percent | | 80 |
| 1,1-Dichloroethene, Percent | | 78 |
| 1,2-Dichloroethane, Percent | | 105 |
| 1,2-Dichlorobenzene, Percent | | 105 |
| 1,2-Dichloropropane, Percent | | 90 |
| 1,3-Dichlorobenzene, Percent | | 100 |
| 1,4-Dichlorobenzene, Percent | | 95 |
| 2-Chloroethylvinylether, Percent | | 105 |
| Acetone, Percent | | 167 |
| Acrolein, Percent | | 57 |
| Acrylonitrile, Percent | | 104 |
| Bromodichloromethane, Percent | | 95 |
| Bromomethane, Percent | | 78 |
| Benzene, Percent | | 105 |
| Bromoform, Percent | | 70 |
| Chlorobenzene, Percent | | 100 |
| Carbon Tetrachloride, Percent | | 85 |
| Chloroethane, Percent | | 75 |
| Chloroform, Percent | | 85 |
| Chloromethane, Percent | | 25 |
| Dibromochloromethane, Percent | | 90 |

Analytical Report

REPORT NO. 218.2

LOG NO: G90-04-464

Received: 22 APR 90
Reported: 10 MAY 90

Ms. Lanae Raymond
Hargis & Associates, Inc.
3385 N. Campbell Ave., Ste 121
Tucson, Arizona 85719

CC: Kathryn Parker

Project: 218.2

REPORT OF ANALYTICAL RESULTS

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| LOG NO | SAMPLE DESCRIPTION, REAGENT WATER SAMPLES | DATE SAMPLED |
|--------------------------------------|---|--------------|
| 04-464-12 | Laboratory Control Standard | |
| PARAMETER | | 04-464-12 |
| Ethylbenzene, Percent | 90 | |
| Methylene chloride, Percent | 145 | |
| Trichloroethene, Percent | 100 | |
| Trichlorofluoromethane, Percent | 75 | |
| Toluene, Percent | 90 | |
| Tetrachloroethene, Percent | 90 | |
| Vinyl chloride, Percent | 48 | |
| cis-1,3-Dichloropropene, Percent | 60 | |
| trans-1,2-Dichloroethene, Percent | 85 | |
| trans-1,3-Dichloropropene, Percent | 85 | |
| Other VOCs Method 624 (SOP MS 00188) | --- | |

Sample MW-5 was diluted twentyfold during the 608 analysis due to matrix interferences.

L. Brack 05/10/90

Amended report due to incorrect 624 detection limits for samples -1 and -2. L. Brack 05/17/90
Amended report due to incorrect 624 detection limits for samples -7 and -8. L. Brack 05/24/90

Jeffrey A. Erion, Laboratory Manager

Appendix F



HARGIS + ASSOCIATES, INC.

APPENDIX F

ANALYTICAL TECHNOLOGIES, INC. RAW ANALYTICAL DATA FOR
LABORATORY SPLIT SAMPLES FROM INITIAL GROUNDWATER
SAMPLING ROUND FOR WELLS MW-16 THROUGH MW-22 AND
ANNUAL GROUNDWATER SAMPLING ROUND, APRIL 16-21, 1990



HARGIS + ASSOCIATES, INC.

APPENDIX F

TABLE OF CONTENTS

REPORT LOG NO: 004207

REPORT LOG NO: 004228

REPORT LOG NO: 004253

REPORT LOG NO: 004265

REPORT LOG NO: 004276

REPORT LOG NO: 004283



Analytical Technologies, Inc.

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004207

DATE RECEIVED : 04/17/90

REPORT DATE : 05/22/90

| ATI # | CLIENT DESCRIPTION | MATRIX | DATE COLLECTED |
|-------|--------------------|--------|----------------|
| 01 | MW-16 | WATER | 04/16/90 |

----- TOTALS -----

| MATRIX | # SAMPLES |
|--------|-----------|
| WATER | 1 |

----- ATI STANDARD DISPOSAL PRACTICE -----

The samples from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 00420701

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : MW-16
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/16/90
DATE RECEIVED : 04/17/90
DATE EXTRACTED : 04/20/90
DATE ANALYZED : 05/05/90
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

| | |
|---------------------|--------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | <0.010 |
| DELTA - BHC | <0.010 |
| CHLORDANE | <0.50 |
| P, P'-DDD | <0.020 |
| P, P'-DDE | <0.020 |
| P, P'-DDT | <0.020 |
| DIELDRIN | <0.10 |
| ENDOSULFAN I | <0.050 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.050 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <0.050 |
| TOXAPHENE | <1.0 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.50 |
| O, P'-DDD | <0.020 |
| O, P'-DDE | <0.020 |
| O, P'-DDT | <0.020 |
| TOTAL BHC | <0.010 |
| TOTAL DDT | <0.020 |

SURROGATE PERCENT RECOVERIES

DBC (%)

96



Analytical Technologies GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004207
DATE EXTRACTED : 04/20/90
DATE ANALYZED : 05/05/90
UNITS : UG/L
DILUTION FACTOR : N/A

| COMPOUNDS | RESULTS |
|---------------------|---------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | <0.010 |
| DELTA - BHC | <0.010 |
| CHLORDANE | <0.020 |
| P, P'-DDD | <0.020 |
| P, P'-DDE | <0.020 |
| P, P'-DDT | <0.10 |
| DIELDRIN | <0.050 |
| ENDOSULFAN I | <0.10 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.050 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <1.0 |
| TOXAPHENE | <0.50 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.020 |
| O, P'-DDD | <0.020 |
| O, P'-DDE | <0.020 |
| O, P'-DDT | <0.020 |
| TOTAL BHC | <0.010 |
| TOTAL DDT | <0.020 |

SURROGATE PERCENT RECOVERIES

DBC (%)

115



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004207

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
REF I.D. : 00422801

DATE EXTRACTED : 04/20/90
DATE ANALYZED : 05/05/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | RESULT SPIKED | DUP. | DUP. | RPD |
|------------|--------------|---------------|----------|---------------|-----|
| | | | % SPIKED | % SAMPLE REC. | |
| LINDANE | 0.011 | 0.17 | 84 | 0.18 | 89 |
| HEPTACHLOR | <0.050 | 0.13 | 68 | 0.15 | 79 |
| ALDRIN | <0.050 | 0.14 | 74 | 0.15 | 79 |
| DIELDRIN | <0.10 | 0.44 | 92 | 0.46 | 96 |
| ENDRIN | <0.10 | 0.45 | 118 | 0.47 | 124 |
| 4,4' DDT | <0.020 | 0.39 | 103 | 0.43 | 113 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample} - \text{Duplicate Spike})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004207

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
REF I.D. : REAGENT WATER

DATE EXTRACTED : 04/20/90
DATE ANALYZED : 05/05/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | SPIKED RESULT | % SPIKED | DUP. | DUP. | RPD |
|------------|--------------|---------------|----------|-------------------|-------------|-----|
| | | | | SPIKE SAMPLE REC. | SAMPLE REC. | |
| LINDANE | <0.010 | 0.20 | 0.17 | 85 | N/A | N/A |
| HEPTACHLOR | <0.050 | 0.20 | 0.17 | 85 | N/A | N/A |
| ALDRIN | <0.050 | 0.20 | 0.15 | 75 | N/A | N/A |
| DIELDRIN | <0.10 | 0.50 | 0.47 | 94 | N/A | N/A |
| ENDRIN | <0.10 | 0.39 | 0.42 | 108 | N/A | N/A |
| 4,4' DDT | <0.020 | 0.39 | 0.45 | 115 | N/A | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 00420701

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : MW-16
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/16/90
DATE RECEIVED : 04/17/90
DATE EXTRACTED : N/A
DATE ANALYZED : 04/20/90
UNITS : UG/L
DILUTION FACTOR : 5

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <50 |
| BROMOMETHANE | <50 |
| VINYL CHLORIDE | <5 |
| CHLOROETHANE | <5 |
| METHYLENE CHLORIDE | <25 |
| ACETONE | <50 |
| CARBON DISULFIDE | <5 |
| 1,1-DICHLOROETHENE | <5 |
| 1,1-DICHLOROETHANE | <5 |
| TRANS-1,2-DICHLOROETHENE | <5 |
| CIS-1,2-DICHLOROETHENE | <5 |
| CHLOROFORM | 93 |
| 1,2-DICHLOROETHANE | <5 |
| 2-BUTANONE (MEK) | <50 |
| 1,1,1-TRICHLOROETHANE | <5 |
| CARBON TETRACHLORIDE | <50 |
| VINYL ACETATE | <5 |
| BROMODICHLOROMETHANE | <5 |
| 1,1,2,2-TETRACHLOROETHANE | <5 |
| 1,2-DICHLOROPROPANE | <5 |
| CIS-1,3-DICHLOROPROPENE | <5 |
| TRICHLOROETHENE | 680 |
| DIBROMOCHLOROMETHANE | <5 |
| 1,1,2-TRICHLOROETHANE | <5 |
| BENZENE | <5 |
| TRANS-1,3-DICHLOROPROPENE | <5 |
| BROMOFORM | <25 |
| 2-HEXANONE (MBK) | <50 |
| 4-METHYL-2-PENTANONE (MIBK) | <50 |
| TETRACHLOROETHENE | 21 |
| TOLUENE | <5 |
| CHLOROBENZENE | <5 |
| ETHYL BENZENE | <5 |
| STYRENE | <5 |
| TOTAL XYLENES | <5 |
| DICHLOROBENZENES | <25 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|-----|
| 1,2-DICHLOROETHANE-D4 (%) | 104 |
| BFB (%) | 95 |
| TOLUENE-D8 (%) | 91 |



Analytical Technologies ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

ATI I.D. : 00420701

MATRIX : WATER

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004207
DATE EXTRACTED : N/A
DATE ANALYZED : 04/19/90
UNITS : UG/L
DILUTION FACTOR : N/A

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <10 |
| BROMOMETHANE | <10 |
| VINYL CHLORIDE | <1 |
| CHLOROETHANE | <1 |
| METHYLENE CHLORIDE | <5 |
| ACETONE | <10 |
| CARBON DISULFIDE | <1 |
| 1,1-DICHLOROETHENE | <1 |
| 1,1-DICHLOROETHANE | <1 |
| TRANS-1,2-DICHLOROETHENE | <1 |
| CIS-1,2-DICHLOROETHENE | <1 |
| CHLOROFORM | <1 |
| 1,2-DICHLOROETHANE | <1 |
| 2-BUTANONE (MEK) | <10 |
| 1,1,1-TRICHLOROETHANE | <1 |
| CARBON TETRACHLORIDE | <1 |
| VINYL ACETATE | <10 |
| BROMODICHLOROMETHANE | <1 |
| 1,1,2,2-TETRACHLOROETHANE | <1 |
| 1,2-DICHLOROPROPANE | <1 |
| CIS-1,3-DICHLOROPROPENE | <1 |
| TRICHLOROETHENE | <1 |
| DIBROMOCHLOROMETHANE | <1 |
| 1,1,2-TRICHLOROETHANE | <1 |
| BENZENE | <1 |
| TRANS-1,3-DICHLOROPROPENE | <1 |
| BROMOFORM | <5 |
| 2-HEXANONE (MBK) | <10 |
| 4-METHYL-2-PENTANONE (MIBK) | <10 |
| TETRACHLOROETHENE | <1 |
| TOLUENE | <1 |
| CHLOROBENZENE | <1 |
| ETHYL BENZENE | <1 |
| STYRENE | <1 |
| TOTAL XYLENES | <1 |
| DICHLOROBENZENES | <5 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|-----|
| 1,2-DICHLOROETHANE-D4 (%) | 92 |
| BFB (%) | 99 |
| TOLUENE-D8 (%) | 104 |



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON

ATI I.D. : 004207

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

QUALITY CONTROL DATA

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

ATI I.D. : 004207

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
REF I.D. : 00420701

DATE EXTRACTED : N/A
DATE ANALYZED : 04/20/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE RESULT | CONC. SPIKED | % SPIKED | DUP. | DUP. | RPD |
|--------------------|---------------|--------------|----------|-------------|-------------------|-----|
| | | | | SAMPLE REC. | SPIKE SAMPLE REC. | |
| 1,1-DICHLOROETHENE | <1 | 200 | 200 | 100 | 180 | 90 |
| TRICHLOROETHENE | 680 | 275 | 980 | 109 | 980 | 109 |
| CHLOROBENZENE | <1 | 265 | 270 | 102 | 270 | 102 |
| TOLUENE | <2 | 270 | 270 | 100 | 280 | 104 |
| BENZENE | <1 | 250 | 260 | 104 | 260 | 104 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 004207

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE

DATE RECEIVED : 04/17/90

REPORT DATE : 05/22/90

PARAMETER UNITS 01
PH UNITS 6.95



Analytical Technologies GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004207

| PARAMETER | UNITS | SAMPLE | DUP. | SPIKED | SPIKE | % | | |
|-----------|-------|----------|--------|--------|-------|-------------|-----|-----|
| | | ATI I.D. | RESULT | RESULT | RPD | SAMPLE CONC | REC | |
| PH | UNITS | 00422904 | 6.87 | 6.94 | 1 | N/A | N/A | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



Analytical Technologies, Inc.

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004228

DATE RECEIVED : 04/18/90

REPORT DATE : 05/22/90

| ATI # | CLIENT DESCRIPTION | MATRIX | DATE COLLECTED |
|-------|--------------------|--------|----------------|
| 01 | BF-11 | WATER | 04/17/90 |

----- TOTALS -----

| MATRIX | # SAMPLES |
|--------|-----------|
| WATER | 1 |

----- ATI STANDARD DISPOSAL PRACTICE -----

The samples from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 00422801

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
CLIENT I.D. : BF-11
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/17/90
DATE RECEIVED : 04/18/90
DATE EXTRACTED : 04/20/90
DATE ANALYZED : 05/05/90
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

| | |
|---------------------|--------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | 0.011 |
| DELTA - BHC | <0.010 |
| CHLORDANE | <0.50 |
| P, P'-DDD | <0.020 |
| P, P'-DDE | <0.020 |
| P, P'-DDT | <0.020 |
| DIELDRIN | <0.10 |
| ENDOSULFAN I | <0.050 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.10 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <0.050 |
| TOXAPHENE | <1.0 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.50 |
| O, P'-DDD | <0.020 |
| O, P'-DDE | <0.020 |
| O, P'-DDT | <0.020 |
| TOTAL BHC | 0.011 |
| TOTAL DDT | <0.020 |

SURROGATE PERCENT RECOVERIES

DBC (%)

76



REAGENT BLANK

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

| | | | |
|--------------|--------------------------|-----------------|------------|
| CLIENT | : HARGIS & ASSOC.-TUCSON | ATI I.D. | : 004228 |
| PROJECT # | : 218.2 | DATE EXTRACTED | : 04/20/90 |
| PROJECT NAME | : MONTROSE | DATE ANALYZED | : 05/05/90 |
| CLIENT I.D. | : REAGENT BLANK | UNITS | : UG/L |
| | | DILUTION FACTOR | : N/A |

| COMPOUNDS | RESULTS |
|---------------------|---------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | <0.010 |
| DELTA - BHC | <0.50 |
| CHLORDANE | <0.020 |
| P, P'-DDD | <0.020 |
| P, P'-DDE | <0.020 |
| P, P'-DDT | <0.10 |
| DIELDRIN | <0.050 |
| ENDOSULFAN I | <0.10 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.050 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <0.050 |
| TOXAPHENE | <1.0 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.020 |
| O, P'-DDD | <0.020 |
| O, P'-DDE | <0.020 |
| O, P'-DDT | <0.010 |
| TOTAL BHC | <0.020 |
| TOTAL DDT | |

SURROGATE PERCENT RECOVERIES

DBC (%)

115



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004228

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : 00422801

DATE EXTRACTED : 04/20/90
DATE ANALYZED : 05/05/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | SPIKED % | SPIKED % | DUP. | DUP. | RPD |
|------------|--------------|----------|----------|---------------|-------------|-----|
| | | | | RESULT SPIKED | SAMPLE REC. | |
| LINDANE | 0.011 | 0.19 | 0.17 | 84 | 0.18 | 89 |
| HEPTACHLOR | <0.050 | 0.19 | 0.13 | 68 | 0.15 | 79 |
| ALDRIN | <0.050 | 0.19 | 0.14 | 74 | 0.15 | 79 |
| DIELDRIN | <0.10 | 0.48 | 0.44 | 92 | 0.46 | 96 |
| ENDRIN | <0.10 | 0.38 | 0.45 | 118 | 0.47 | 124 |
| 4,4' DDT | <0.020 | 0.38 | 0.39 | 103 | 0.43 | 113 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004228

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : REAGENT WATER

DATE EXTRACTED : 04/20/90
DATE ANALYZED : 05/05/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | SPIKED % | DUP. | DUP. | RPD |
|------------|--------------|----------|---------------|-------------|-----|
| | | | RESULT SPIKED | SAMPLE REC. | |
| LINDANE | <0.010 | 0.20 | 0.17 | 85 | N/A |
| HEPTACHLOR | <0.050 | 0.20 | 0.17 | 85 | N/A |
| ALDRIN | <0.050 | 0.20 | 0.15 | 75 | N/A |
| DIELDRIN | <0.10 | 0.50 | 0.47 | 94 | N/A |
| ENDRIN | <0.10 | 0.39 | 0.42 | 108 | N/A |
| 4,4' DDT | <0.020 | 0.39 | 0.45 | 115 | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample} - \text{Duplicate Spike})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 00422801

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : BF-11
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/17/90
DATE RECEIVED : 04/18/90
DATE EXTRACTED : N/A
DATE ANALYZED : 04/20/90
UNITS : UG/L
DILUTION FACTOR : 10

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <100 |
| BROMOMETHANE | <100 |
| VINYL CHLORIDE | <10 |
| CHLOROETHANE | <10 |
| METHYLENE CHLORIDE | <50 |
| ACETONE | <100 |
| CARBON DISULFIDE | <10 |
| 1,1-DICHLOROETHENE | <10 |
| 1,1-DICHLOROETHANE | <10 |
| TRANS-1,2-DICHLOROETHENE | <10 |
| CIS-1,2-DICHLOROETHENE | <10 |
| CHLOROFORM | <10 |
| 1,2-DICHLOROETHANE | <10 |
| 2-BUTANONE (MEK) | <100 |
| 1,1,1-TRICHLOROETHANE | <10 |
| CARBON TETRACHLORIDE | <100 |
| VINYL ACETATE | <10 |
| BROMODICHLOROMETHANE | <10 |
| 1,1,2,2-TETRACHLOROETHANE | <10 |
| 1,2-DICHLOROPROPANE | <10 |
| CIS-1,3-DICHLOROPROPENE | <10 |
| TRICHLOROETHENE | <10 |
| DIBROMOCHLOROMETHANE | <10 |
| 1,1,2-TRICHLOROETHANE | <10 |
| BENZENE | <10 |
| TRANS-1,3-DICHLOROPROPENE | <10 |
| BROMOFORM | <50 |
| 2-HEXANONE (MBK) | <100 |
| 4-METHYL-2-PENTANONE (MIBK) | <100 |
| TETRACHLOROETHENE | <10 |
| TOLUENE | <10 |
| CHLOROBENZENE | <10 |
| ETHYL BENZENE | <10 |
| STYRENE | <10 |
| TOTAL XYLENES | <10 |
| DICHLOROBENZENES | <50 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|----|
| 1,2-DICHLOROETHANE-D4 (%) | 96 |
| BFB (%) | 94 |
| TOLUENE-D8 (%) | 91 |



Analytical **Technologies** ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

ATI I.D. : 00422801

MATRIX : WATER

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT #: 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004228
DATE EXTRACTED : N/A
DATE ANALYZED : 04/20/90
UNITS : UG/L
DILUTION FACTOR : N/A

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <10 |
| BROMOMETHANE | <10 |
| VINYL CHLORIDE | <1 |
| CHLOROETHANE | <1 |
| METHYLENE CHLORIDE | TR <5 |
| ACETONE | <10 |
| CARBON DISULFIDE | <1 |
| 1,1-DICHLOROETHENE | <1 |
| 1,1-DICHLOROETHANE | <1 |
| TRANS-1,2-DICHLOROETHENE | <1 |
| CIS-1,2-DICHLOROETHENE | <1 |
| CHLOROFORM | <1 |
| 1,2-DICHLOROETHANE | <10 |
| 2-BUTANONE (MEK) | <1 |
| 1,1,1-TRICHLOROETHANE | <1 |
| CARBON TETRACHLORIDE | <10 |
| VINYL ACETATE | <1 |
| BROMODICHLOROMETHANE | <1 |
| 1,1,2,2-TETRACHLOROETHANE | <1 |
| 1,2-DICHLOROPROPANE | <1 |
| CIS-1,3-DICHLOROPROPENE | <1 |
| TRICHLOROETHENE | <1 |
| DIBROMOCHLOROMETHANE | <1 |
| 1,1,2-TRICHLOROETHANE | <1 |
| BENZENE | <1 |
| TRANS-1,3-DICHLOROPROPENE | <1 |
| BROMOFORM | <5 |
| 2-HEXANONE (MBK) | <10 |
| 4-METHYL-2-PENTANONE (MIBK) | <10 |
| TETRACHLOROETHENE | <1 |
| TOLUENE | <1 |
| CHLOROBENZENE | <1 |
| ETHYL BENZENE | <1 |
| STYRENE | <1 |
| TOTAL XYLEMES | <1 |
| DICHLOROBENZENES | <5 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|----|
| 1,2-DICHLOROETHANE-D4 (%) | 97 |
| BFB (%) | 96 |
| TOLUENE-D8 (%) | 94 |

TR - Compound detected at an unquantifiable trace level



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON

ATI I.D. : 004228

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004228

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : 00420701

DATE EXTRACTED : N/A
DATE ANALYZED : 04/20/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | SPIKED RESULT | DUP. | DUP. | RPD | | |
|--------------------|--------------|---------------|----------------------|---------------|-----|-----|----|
| | | | % SPIKED SAMPLE REC. | % SAMPLE REC. | | | |
| 1,1-DICHLOROETHENE | <1 | 200 | 200 | 100 | 180 | 90 | 11 |
| TRICHLOROETHENE | 680 | 275 | 980 | 109 | 980 | 109 | 0 |
| CHLOROBENZENE | <1 | 265 | 270 | 102 | 270 | 102 | 0 |
| TOLUENE | <2 | 270 | 270 | 100 | 280 | 104 | 4 |
| BENZENE | <1 | 250 | 260 | 104 | 260 | 104 | 0 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical **Technologies**, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 004228

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

DATE RECEIVED : 04/18/90

REPORT DATE : 05/22/90

PARAMETER UNITS 01
PH UNITS 6.84



Analytical Technologies GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004228

| PARAMETER | UNITS | SAMPLE | DUP. | SPIKED | SPIKE | % | | |
|-----------|-------|----------|--------|--------|-------|-------------|-----|-----|
| | | ATI I.D. | RESULT | RESULT | RPD | SAMPLE CONC | REC | |
| PH | UNITS | 00422904 | 6.87 | 6.94 | 1 | N/A | N/A | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



Analytical Technologies, Inc.

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

DATE RECEIVED : 04/19/90

REPORT DATE : 05/22/90

ATI I.D. : 004253

| ATI # | CLIENT DESCRIPTION | MATRIX | DATE COLLECTED |
|-------|--------------------|--------|----------------|
| 01 | MW-12 | WATER | 04/18/90 |

----- TOTALS -----

| MATRIX | # SAMPLES |
|--------|-----------|
| ----- | ----- |
| WATER | 1 |

----- ATI STANDARD DISPOSAL PRACTICE -----

The samples from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 00425301

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : MW-12
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/18/90
DATE RECEIVED : 04/19/90
DATE EXTRACTED : 04/20/90
DATE ANALYZED : 05/05/90
UNITS : UG/L
DILUTION FACTOR : 10

| COMPOUNDS | RESULTS |
|---------------------|---------|
| ALDRIN | <0.50 |
| ALPHA - BHC | <0.10 |
| BETA - BHC | <0.10 |
| GAMMA-BHC (LINDANE) | 0.11 |
| DELTA - BHC | <0.10 |
| CHLORDANE | <5.0 |
| P, P'-DDD | <0.20 |
| P, P'-DDE | <0.20 |
| P, P'-DDT | <0.20 |
| DIELDRIN | <1.0 |
| ENDOSULFAN I | <0.50 |
| ENDOSULFAN II | <1.0 |
| ENDOSULFAN SULFATE | <1.0 |
| ENDRIN | <1.0 |
| ENDRIN KETONE | <0.50 |
| HEPTACHLOR | <0.50 |
| HEPTACHLOR EPOXIDE | <10 |
| TOXAPHENE | <5.0 |
| METHOXYCHLOR | <5.0 |
| AROCLOR 1016 | <5.0 |
| AROCLOR 1221 | <5.0 |
| AROCLOR 1232 | <5.0 |
| AROCLOR 1242 | <5.0 |
| AROCLOR 1248 | <5.0 |
| AROCLOR 1254 | <5.0 |
| AROCLOR 1260 | <5.0 |
| O, P'-DDD | <0.20 |
| O, P'-DDE | <0.20 |
| O, P'-DDT | <0.20 |
| TOTAL BHC | 0.11 |
| TOTAL DDT | <0.20 |

SURROGATE PERCENT RECOVERIES

DBC (%)

75



REAGENT BLANK

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004253
DATE EXTRACTED : 04/20/90
DATE ANALYZED : 05/05/90
UNITS : UG/L
DILUTION FACTOR : N/A

| COMPOUNDS | RESULTS |
|---------------------|---------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | <0.010 |
| DELTA - BHC | <0.010 |
| CHLORDANE | <0.50 |
| P,P'-DDD | <0.020 |
| P,P'-DDE | <0.020 |
| P,P'-DDT | <0.020 |
| DIELDRIN | <0.10 |
| ENDOSULFAN I | <0.050 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.10 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <0.050 |
| TOXAPHENE | <1.0 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.50 |
| O,P'-DDD | <0.020 |
| O,P'-DDE | <0.020 |
| O,P'-DDT | <0.020 |
| TOTAL BHC | <0.010 |
| TOTAL DDT | <0.020 |

SURROGATE PERCENT RECOVERIES

DBC (%)

115



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004253

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : 00422801

DATE EXTRACTED : 04/20/90
DATE ANALYZED : 05/05/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | RESULT SPIKED | DUP. | DUP. | RPD | | |
|------------|--------------|---------------|----------------------|----------------------|------|-----|----|
| | | | % SPIKED SAMPLE REC. | % SPIKED SAMPLE REC. | | | |
| LINDANE | 0.011 | 0.19 | 0.17 | 84 | 0.18 | 89 | 6 |
| HEPTACHLOR | <0.050 | 0.19 | 0.13 | 68 | 0.15 | 79 | 14 |
| ALDRIN | <0.050 | 0.19 | 0.14 | 74 | 0.15 | 79 | 7 |
| DIELDRIN | <0.10 | 0.48 | 0.44 | 92 | 0.46 | 96 | 4 |
| ENDRIN | <0.10 | 0.38 | 0.45 | 118 | 0.47 | 124 | 4 |
| 4,4' DDT | <0.020 | 0.38 | 0.39 | 103 | 0.43 | 113 | 10 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample} - \text{Duplicate Spike})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004253

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : REAGENT WATER

DATE EXTRACTED : 04/20/90
DATE ANALYZED : 05/05/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | RESULT SPIKED | DUP. | DUP. | RPD |
|------------|--------------|---------------|----------|----------|-----|
| | | | SPIKED % | SPIKED % | |
| LINDANE | <0.010 | 0.20 | 0.17 | 85 | N/A |
| HEPTACHLOR | <0.050 | 0.20 | 0.17 | 85 | N/A |
| ALDRIN | <0.050 | 0.20 | 0.15 | 75 | N/A |
| DIELDRIN | <0.10 | 0.50 | 0.47 | 94 | N/A |
| ENDRIN | <0.10 | 0.39 | 0.42 | 108 | N/A |
| 4,4' DDT | <0.020 | 0.39 | 0.45 | 115 | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



GCMS - RESULTS

ATI I.D. : 00425301

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
CLIENT I.D. : MW-12
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/18/90
DATE RECEIVED : 04/19/90
DATE EXTRACTED : N/A
DATE ANALYZED : 04/20/90
UNITS : UG/L
DILUTION FACTOR : 50

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <500 |
| BROMOMETHANE | <500 |
| VINYL CHLORIDE | <50 |
| CHLOROETHANE | <50 |
| METHYLENE CHLORIDE | <250 |
| ACETONE | <500 |
| CARBON DISULFIDE | <50 |
| 1,1-DICHLOROETHENE | <50 |
| 1,1-DICHLOROETHANE | <50 |
| TRANS-1,2-DICHLOROETHENE | <50 |
| CIS-1,2-DICHLOROETHENE | <50 |
| CHLOROFORM | 7800 |
| 1,2-DICHLOROETHANE | 620 |
| 2-BUTANONE (MEK) | <500 |
| 1,1,1-TRICHLOROETHANE | <50 |
| CARBON TETRACHLORIDE | <500 |
| VINYL ACETATE | <50 |
| BROMODICHLOROMETHANE | <50 |
| 1,1,2,2-TETRACHLOROETHANE | <50 |
| 1,2-DICHLOROPROPANE | <50 |
| CIS-1,3-DICHLOROPROPENE | <50 |
| TRICHLOROETHENE | 67 |
| DIBROMOCHLOROMETHANE | <50 |
| 1,1,2-TRICHLOROETHANE | <50 |
| BENZENE | 12000 |
| TRANS-1,3-DICHLOROPROPENE | <50 |
| BROMOFORM | <250 |
| 2-HEXANONE (MBK) | <500 |
| 4-METHYL-2-PENTANONE (MIBK) | <500 |
| TETRACHLOROETHENE | <50 |
| TOLUENE | 9600 |
| CHLOROBENZENE | 7600 |
| ETHYL BENZENE | 6800 |
| STYRENE | <50 |
| TOTAL XYLENES | 2400 |
| DICHLOROBENZENES | <250 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|----|
| 1,2-DICHLOROETHANE-D4 (%) | 99 |
| BFB (%) | 93 |
| TOLUENE-D8 (%) | 90 |



Analytical Technologies ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

ATI I.D. : 00425301

MATRIX : WATER

UNITS : UG/L

COMPOUNDS

RESULTS

| | |
|-------------------------|------|
| 1506 ETHYLMETHYLBENZENE | 2000 |
| 1562 ETHYLMETHYLBENZENE | 500 |
| 1587 TRIMETHYLBENZENE | 2000 |
| 1677 TRIMETHYLBENZENE | 600 |



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004253
DATE EXTRACTED : N/A
DATE ANALYZED : 04/20/90
UNITS : UG/L
DILUTION FACTOR : N/A

COMPOUNDS

RESULTS

| | |
|-----------------------------|-------|
| CHLOROMETHANE | <10 |
| BROMOMETHANE | <10 |
| VINYL CHLORIDE | <1 |
| CHLOROETHANE | <1 |
| METHYLENE CHLORIDE | TR <5 |
| ACETONE | <10 |
| CARBON DISULFIDE | <1 |
| 1,1-DICHLOROETHENE | <1 |
| 1,1-DICHLOROETHANE | <1 |
| TRANS-1,2-DICHLOROETHENE | <1 |
| CIS-1,2-DICHLOROETHENE | <1 |
| CHLOROFORM | <1 |
| 1,2-DICHLOROETHANE | <10 |
| 2-BUTANONE (MEK) | <1 |
| 1,1,1-TRICHLOROETHANE | <1 |
| CARBON TETRACHLORIDE | <10 |
| VINYL ACETATE | <10 |
| BROMODICHLOROMETHANE | <1 |
| 1,1,2,2-TETRACHLOROETHANE | <1 |
| 1,2-DICHLOROPROPANE | <1 |
| CIS-1,3-DICHLOROPROPENE | <1 |
| TRICHLOROETHENE | <1 |
| DIBROMOCHLOROMETHANE | <1 |
| 1,1,2-TRICHLOROETHANE | <1 |
| BENZENE | <1 |
| TRANS-1,3-DICHLOROPROPENE | <1 |
| BROMOFORM | <5 |
| 2-HEXANONE (MBK) | <10 |
| 4-METHYL-2-PENTANONE (MIBK) | <10 |
| TETRACHLOROETHENE | <1 |
| TOLUENE | <1 |
| CHLOROBENZENE | <1 |
| ETHYL BENZENE | <1 |
| STYRENE | <1 |
| TOTAL XYLENES | <1 |
| DICHLOROBENZENES | <5 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|----|
| 1,2-DICHLOROETHANE-D4 (%) | 97 |
| BFB (%) | 96 |
| TOLUENE-D8 (%) | 94 |

TR - Compound detected at an unquantifiable trace level



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON

ATI I.D. : 004253

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004253

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : 00420701

DATE EXTRACTED : N/A
DATE ANALYZED : 04/20/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | SPIKED RESULT | DUP. | DUP. | RPD |
|--------------------|--------------|---------------|----------------------|---------------|-----|
| | | | % SPIKED SAMPLE REC. | % SAMPLE REC. | |
| 1,1-DICHLOROETHENE | <1 | 200 | 200 | 100 | 11 |
| TRICHLOROETHENE | 680 | 275 | 980 | 109 | 0 |
| CHLOROBENZENE | <1 | 265 | 270 | 102 | 0 |
| TOLUENE | <2 | 270 | 270 | 100 | 4 |
| BENZENE | <1 | 250 | 260 | 104 | 0 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 004253

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE

DATE RECEIVED : 04/19/90
REPORT DATE : 05/22/90

| PARAMETER | UNITS | 01 |
|-----------|-------|------|
| PH | UNITS | 7.75 |



CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004253

| PARAMETER | UNITS | ATI I.D. | SAMPLE | DUP. | SPIKED | SPIKE | % |
|-----------|-------|----------|--------|--------|--------|-------------|-----|
| | | | RESULT | RESULT | RPD | SAMPLE CONC | REC |
| PH | UNITS | 00426501 | 8.26 | 8.34 | 1 | N/A | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



Analytical Technologies, Inc.

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004265

DATE RECEIVED : 04/20/90

REPORT DATE : 05/22/90

| ATI # | CLIENT DESCRIPTION | MATRIX | DATE COLLECTED |
|-------|--------------------|--------|----------------|
| 01 | LW-1 | WATER | 04/19/90 |
| 02 | TRIP BLANK | WATER | 04/19/90 |

----- TOTALS -----

| MATRIX | # SAMPLES |
|--------|-----------|
| ----- | ----- |
| WATER | 2 |

----- ATI STANDARD DISPOSAL PRACTICE -----

The samples from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 00426501

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : LW-1
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/19/90
DATE RECEIVED : 04/20/90
DATE EXTRACTED : 04/25/90
DATE ANALYZED : 05/05/90
UNITS : UG/L
DILUTION FACTOR : 1

| COMPOUNDS | RESULTS |
|---------------------|---------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | <0.010 |
| DELTA - BHC | <0.010 |
| CHLORDANE | <0.50 |
| P,P'-DDD | 0.027 |
| P,P'-DDE | <0.020 |
| P,P'-DDT | <0.020 |
| DIELDRIN | <0.10 |
| ENDOSULFAN I | <0.050 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.050 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <0.050 |
| TOXAPHENE | <1.0 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.50 |
| O,P'-DDD | <0.020 |
| O,P'-DDE | <0.020 |
| O,P'-DDT | <0.020 |
| TOTAL BHC | <0.010 |
| TOTAL DDT | 0.027 |

SURROGATE PERCENT RECOVERIES

DBC (%)

131



Analytical Technologies GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004265
DATE EXTRACTED : 04/25/90
DATE ANALYZED : 05/05/90
UNITS : UG/L
DILUTION FACTOR : N/A

| COMPOUNDS | RESULTS |
|---------------------|---------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | <0.010 |
| DELTA - BHC | <0.010 |
| CHLORDANE | <0.50 |
| P, P'-DDD | <0.020 |
| P, P'-DDE | <0.020 |
| P, P'-DDT | <0.020 |
| DIELDRIN | <0.10 |
| ENDOSULFAN I | <0.050 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.050 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <0.050 |
| TOXAPHENE | <1.0 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.50 |
| O, P'-DDD | <0.020 |
| O, P'-DDE | <0.020 |
| O, P'-DDT | <0.020 |
| TOTAL BHC | <0.010 |
| TOTAL DDT | <0.020 |

SURROGATE PERCENT RECOVERIES

DBC (%)

126



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D.

: 004265

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : 00428301

DATE EXTRACTED : 04/25/90
DATE ANALYZED : 05/06/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | SPIKED % | DUP. | DUP. | RPD | | |
|------------|--------------|----------|---------------|-------------|------|-----|----|
| | | | RESULT SPIKED | SAMPLE REC. | | | |
| LINDANE | <0.010 | 0.19 | 0.16 | 84 | 0.17 | 89 | 6 |
| HEPTACHLOR | <0.050 | 0.19 | 0.13 | 68 | 0.15 | 79 | 14 |
| ALDRIN | <0.050 | 0.19 | 0.14 | 74 | 0.15 | 79 | 7 |
| DIELDRIN | <0.10 | 0.47 | 0.45 | 96 | 0.46 | 98 | 2 |
| ENDRIN | <0.10 | 0.37 | 0.36 | 97 | 0.37 | 100 | 3 |
| 4,4' DDT | <0.020 | 0.37 | 0.41 | 111 | 0.41 | 111 | 0 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample} - \text{Duplicate Spike})}{\text{Average of Spiked Sample}} \times 100$$

Result Sample Result

X 100



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004265

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : REAGENT WATER

DATE EXTRACTED : 04/25/90
DATE ANALYZED : 05/06/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | RESULT SPIKED | DUP. | DUP. | RPD |
|------------|--------------|---------------|----------------------|----------------------|-----|
| | | | % SPIKED SAMPLE REC. | % SPIKED SAMPLE REC. | |
| LINDANE | <0.010 | 0.20 | 0.19 | 95 | N/A |
| HEPTACHLOR | <0.050 | 0.20 | 0.19 | 95 | N/A |
| ALDRIN | <0.050 | 0.20 | 0.16 | 80 | N/A |
| DIELDRIN | <0.10 | 0.50 | 0.51 | 102 | N/A |
| ENDRIN | <0.10 | 0.39 | 0.46 | 118 | N/A |
| 4,4' DDT | <0.020 | 0.39 | 0.46 | 118 | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 00426502

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
CLIENT I.D. : TRIP BLANK
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/19/90
DATE RECEIVED : 04/20/90
DATE EXTRACTED : N/A
DATE ANALYZED : 04/24/90
UNITS : UG/L
DILUTION FACTOR : 1

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <10 |
| BROMOMETHANE | <10 |
| VINYL CHLORIDE | <1 |
| CHLOROETHANE | <1 |
| METHYLENE CHLORIDE | <5 |
| ACETONE | <20 |
| CARBON DISULFIDE | <1 |
| 1,1-DICHLOROETHENE | <1 |
| 1,1-DICHLOROETHANE | <1 |
| 1,2-DICHLOROETHENE (TOTAL) | <1 |
| CHLOROFORM | <1 |
| 1,2-DICHLOROETHANE | <1 |
| 2-BUTANONE (MEK) | <20 |
| 1,1,1-TRICHLOROETHANE | <1 |
| CARBON TETRACHLORIDE | <1 |
| VINYL ACETATE | <10 |
| BROMODICHLOROMETHANE | <1 |
| 1,1,2,2-TETRACHLOROETHANE | <1 |
| 1,2-DICHLOROPROPANE | <1 |
| CIS-1,3-DICHLOROPROPENE | <1 |
| TRICHLOROETHENE | <1 |
| DIBROMOCHLOROMETHANE | <1 |
| 1,1,2 TRICHLOROETHANE | <1 |
| BENZENE | <1 |
| TRANS-1,3-DICHLOROPROPENE | <1 |
| BROMOFORM | <5 |
| 2-HEXANONE (MBK) | <10 |
| 4-METHYL-2-PENTANONE (MIBK) | <10 |
| TETRACHLOROETHENE | <1 |
| TOLUENE | <2 |
| CHLOROBENZENE | <1 |
| ETHYL BENZENE | <1 |
| STYRENE | <1 |
| TOTAL XYLEMES | <1 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|-----|
| 1,2-DICHLOROETHANE-D4 (%) | 100 |
| BFB (%) | 105 |
| TOLUENE-D8 (%) | 101 |



Analytical Technologies, INC. ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

ATI I.D. : 00426502

MATRIX : WATER

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT #: 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004265
DATE EXTRACTED : N/A
DATE ANALYZED : 04/23/90
UNITS : UG/L
DILUTION FACTOR : N/A

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <10 |
| BROMOMETHANE | <10 |
| VINYL CHLORIDE | <1 |
| CHLOROETHANE | <1 |
| METHYLENE CHLORIDE | <5 |
| ACETONE | <20 |
| CARBON DISULFIDE | <1 |
| 1,1-DICHLOROETHENE | <1 |
| 1,1-DICHLOROETHANE | <1 |
| 1,2-DICHLOROETHENE (TOTAL) | <1 |
| CHLOROFORM | <1 |
| 1,2-DICHLOROETHANE | <1 |
| 2-BUTANONE (MEK) | <20 |
| 1,1,1-TRICHLOROETHANE | <1 |
| CARBON TETRACHLORIDE | <10 |
| VINYL ACETATE | <1 |
| BROMODICHLOROMETHANE | <1 |
| 1,1,2,2-TETRACHLOROETHANE | <1 |
| 1,2-DICHLOROPROPANE | <1 |
| CIS-1,3-DICHLOROPROPENE | <1 |
| TRICHLOROETHENE | <1 |
| DIBROMOCHLOROMETHANE | <1 |
| 1,1,2 TRICHLOROETHANE | <1 |
| BENZENE | <1 |
| TRANS-1,3-DICHLOROPROPENE | <5 |
| BROMOFORM | <10 |
| 2-HEXANONE (MBK) | <10 |
| 4-METHYL-2-PENTANONE (MIBK) | <1 |
| TETRACHLOROETHENE | <2 |
| TOLUENE | <1 |
| CHLOROBENZENE | <1 |
| ETHYL BENZENE | <1 |
| STYRENE | <1 |
| TOTAL XYLENES | <1 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|-----|
| 1,2-DICHLOROETHANE-D4 (%) | 93 |
| BFB (%) | 98 |
| TOLUENE-D8 (%) | 101 |



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON

ATI I.D. : 004265

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

QUALITY CONTROL DATA

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
REF I.D. : 00420701

ATI I.D. : 004265

DATE EXTRACTED : N/A
DATE ANALYZED : 04/20/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | RESULT SPIKED | DUP. | DUP. | RPD |
|--------------------|--------------|---------------|----------|----------|-------|
| | | | % SPIKED | % SPIKED | |
| 1,1-DICHLOROETHENE | <1 | 200 | 200 | 100 180 | 90 11 |
| TRICHLOROETHENE | 680 | 275 | 980 | 109 980 | 109 0 |
| CHLOROBENZENE | <1 | 265 | 270 | 102 270 | 102 0 |
| TOLUENE | <2 | 270 | 270 | 100 280 | 104 4 |
| BENZENE | <1 | 250 | 260 | 104 260 | 104 0 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample} - \text{Duplicate Spike})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 00426501

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : LW-1
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/19/90
DATE RECEIVED : 04/20/90
DATE EXTRACTED : N/A
DATE ANALYZED : 04/24/90
UNITS : UG/L
DILUTION FACTOR : 1

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <10 |
| BROMOMETHANE | <10 |
| VINYL CHLORIDE | <1 |
| CHLOROETHANE | <1 |
| METHYLENE CHLORIDE | <5 |
| ACETONE | <10 |
| CARBON DISULFIDE | <1 |
| 1,1-DICHLOROETHENE | <1 |
| 1,1-DICHLOROETHANE | <1 |
| TRANS-1,2-DICHLOROETHENE | <1 |
| CIS-1,2-DICHLOROETHENE | <1 |
| CHLOROFORM | <1 |
| 1,2-DICHLOROETHANE | <10 |
| 2-BUTANONE (MEK) | <1 |
| 1,1,1-TRICHLOROETHANE | <1 |
| CARBON TETRACHLORIDE | <10 |
| VINYL ACETATE | <10 |
| BROMODICHLOROMETHANE | <1 |
| 1,1,2,2-TETRACHLOROETHANE | <1 |
| 1,2-DICHLOROPROPANE | <1 |
| CIS-1,3-DICHLOROPROPENE | <1 |
| TRICHLOROETHENE | <1 |
| DIBROMOCHLOROMETHANE | <1 |
| 1,1,2-TRICHLOROETHANE | <1 |
| BENZENE | <1 |
| TRANS-1,3-DICHLOROPROPENE | <1 |
| BROMOFORM | <5 |
| 2-HEXANONE (MBK) | <10 |
| 4-METHYL-2-PENTANONE (MIBK) | <10 |
| TETRACHLOROETHENE | <1 |
| TOLUENE | <1 |
| CHLOROBENZENE | 13 |
| ETHYL BENZENE | <1 |
| STYRENE | <1 |
| TOTAL XYLEMES | <1 |
| DICHLOROBENZENES | <5 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|-----|
| 1,2-DICHLOROETHANE-D4 (%) | 94 |
| BFB (%) | 96 |
| TOLUENE-D8 (%) | 101 |



Analytical Technologies ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

ATI I.D. : 00426501

MATRIX : WATER

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004265
DATE EXTRACTED : N/A
DATE ANALYZED : 04/24/90
UNITS : UG/L
DILUTION FACTOR : N/A

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <10 |
| BROMOMETHANE | <10 |
| VINYL CHLORIDE | <1 |
| CHLOROETHANE | <1 |
| METHYLENE CHLORIDE | TR <5 |
| ACETONE | <10 |
| CARBON DISULFIDE | <1 |
| 1,1-DICHLOROETHENE | <1 |
| 1,1-DICHLOROETHANE | <1 |
| TRANS-1,2-DICHLOROETHENE | <1 |
| CIS-1,2-DICHLOROETHENE | <1 |
| CHLOROFORM | <1 |
| 1,2-DICHLOROETHANE | <10 |
| 2-BUTANONE (MEK) | <1 |
| 1,1,1-TRICHLOROETHANE | <1 |
| CARBON TETRACHLORIDE | <10 |
| VINYL ACETATE | <10 |
| BROMODICHLOROMETHANE | <1 |
| 1,1,2,2-TETRACHLOROETHANE | <1 |
| 1,2-DICHLOROPROPANE | <1 |
| CIS-1,3-DICHLOROPROPENE | <1 |
| TRICHLOROETHENE | <1 |
| DIBROMOCHLOROMETHANE | <1 |
| 1,1,2-TRICHLOROETHANE | <1 |
| BENZENE | <1 |
| TRANS-1,3-DICHLOROPROPENE | <1 |
| BROMOFORM | <5 |
| 2-HEXANONE (MBK) | <10 |
| 4-METHYL-2-PENTANONE (MIBK) | <10 |
| TETRACHLOROETHENE | <1 |
| TOLUENE | <1 |
| CHLOROBENZENE | <1 |
| ETHYL BENZENE | <1 |
| STYRENE | <1 |
| TOTAL XYLENES | <1 |
| DICHLOROBENZENES | <5 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|-----|
| 1,2-DICHLOROETHANE-D4 (%) | 95 |
| BFB (%) | 97 |
| TOLUENE-D8 (%) | 101 |

TR - Compound detected at an unquantifiable trace level



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON

ATI I.D. : 004265

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004265

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : 00420701

DATE EXTRACTED : N/A
DATE ANALYZED : 04/20/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE RESULT | CONC. SPIKED | % SPIKED | | DUP. % SAMPLE REC. | DUP. % REC. | RPD |
|--------------------|---------------|--------------|----------|-------------|--------------------|-------------|-----|
| | | | SPIKED | SAMPLE REC. | | | |
| 1,1-DICHLOROETHENE | <1 | 200 | 200 | 100 | 180 | 90 | 11 |
| TRICHLOROETHENE | 680 | 275 | 980 | 109 | 980 | 109 | 0 |
| CHLOROBENZENE | <1 | 265 | 270 | 102 | 270 | 102 | 0 |
| TOLUENE | <2 | 270 | 270 | 100 | 280 | 104 | 4 |
| BENZENE | <1 | 250 | 260 | 104 | 260 | 104 | 0 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 004265

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE

DATE RECEIVED : 04/20/90

REPORT DATE : 05/22/90

PARAMETER UNITS 01
PH UNITS 8.26



Analytical Technologies, Inc. GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004265

| PARAMETER | UNITS | SAMPLE | DUP. | SPIKED | SPIKE | % | | |
|-----------|-------|----------|--------|--------|-------|-------------|-----|-----|
| | | ATI I.D. | RESULT | RESULT | RPD | SAMPLE CONC | REC | |
| PH | UNITS | 00426501 | 8.26 | 8.34 | 1 | N/A | N/A | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



Analytical Technologies, Inc.

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004276

DATE RECEIVED : 04/21/90

REPORT DATE : 05/22/90

| ATI # | CLIENT DESCRIPTION | MATRIX | DATE COLLECTED |
|-------|--------------------|--------|----------------|
| 01 | MW-18 | WATER | 04/20/90 |

----- TOTALS -----

| MATRIX | # SAMPLES |
|--------|-----------|
| ----- | ----- |
| WATER | 1 |

----- ATI STANDARD DISPOSAL PRACTICE -----

The samples from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 00427601

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
CLIENT I.D. : MW-18
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/20/90
DATE RECEIVED : 04/21/90
DATE EXTRACTED : 04/25/90
DATE ANALYZED : 05/05/90
UNITS : UG/L
DILUTION FACTOR : 1

COMPOUNDS

RESULTS

| | |
|---------------------|--------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | <0.010 |
| DELTA - BHC | <0.50 |
| CHLORDANE | <0.020 |
| P,P'-DDD | <0.020 |
| P,P'-DDE | <0.020 |
| P,P'-DDT | <0.10 |
| DIELDRIN | <0.050 |
| ENDOSULFAN I | <0.10 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.050 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <1.0 |
| TOXAPHENE | <0.50 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.020 |
| O,P'-DDD | <0.020 |
| O,P'-DDE | <0.020 |
| O,P'-DDT | <0.010 |
| TOTAL BHC | <0.020 |
| TOTAL DDT | |

SURROGATE PERCENT RECOVERIES

DBC (%)

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Analytical Technologies, INC. GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004276
DATE EXTRACTED : 04/25/90
DATE ANALYZED : 05/05/90
UNITS : UG/L
DILUTION FACTOR : N/A

COMPOUNDS

RESULTS

| | |
|---------------------|--------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | <0.010 |
| DELTA - BHC | <0.50 |
| CHLORDANE | <0.020 |
| P, P'-DDD | <0.020 |
| P, P'-DDE | <0.020 |
| P, P'-DDT | <0.10 |
| DIELDRIN | <0.050 |
| ENDOSULFAN I | <0.10 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.050 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <1.0 |
| TOXAPHENE | <0.50 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.020 |
| O, P'-DDD | <0.020 |
| O, P'-DDE | <0.020 |
| O, P'-DDT | <0.010 |
| TOTAL BHC | <0.020 |
| TOTAL DDT | |

SURROGATE PERCENT RECOVERIES

DBC (%)

126



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004276

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
REF I.D. : 00428301

DATE EXTRACTED : 04/25/90
DATE ANALYZED : 05/06/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | SPIKED RESULT | DUP. | DUP. | RPD | | |
|------------|--------------|---------------|---------------|--------------------|------|-----|----|
| | | | SPIKED SAMPLE | % REC. SAMPLE REC. | | | |
| LINDANE | <0.010 | 0.19 | 0.16 | 84 | 0.17 | 89 | 6 |
| HEPTACHLOR | <0.050 | 0.19 | 0.13 | 68 | 0.15 | 79 | 14 |
| ALDRIN | <0.050 | 0.19 | 0.14 | 74 | 0.15 | 79 | 7 |
| DIELDRIN | <0.10 | 0.47 | 0.45 | 96 | 0.46 | 98 | 2 |
| ENDRIN | <0.10 | 0.37 | 0.36 | 97 | 0.37 | 100 | 3 |
| 4,4' DDT | <0.020 | 0.37 | 0.41 | 111 | 0.41 | 111 | 0 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample} - \text{Duplicate Spike})}{\text{Average of Spiked Sample}} \times 100$$

Result Sample Result

x 100

x 100



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004276

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : REAGENT WATER

DATE EXTRACTED : 04/25/90
DATE ANALYZED : 05/06/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | SPIKED RESULT | DUP. | DUP. | RPD |
|------------|--------------|---------------|----------------------|---------------|-----|
| | | | % SPIKED SAMPLE REC. | % SAMPLE REC. | |
| LINDANE | <0.010 | 0.20 | 0.19 | 95 | N/A |
| HEPTACHLOR | <0.050 | 0.20 | 0.19 | 95 | N/A |
| ALDRIN | <0.050 | 0.20 | 0.16 | 80 | N/A |
| DIELDRIN | <0.10 | 0.50 | 0.51 | 102 | N/A |
| ENDRIN | <0.10 | 0.39 | 0.46 | 118 | N/A |
| 4,4' DDT | <0.020 | 0.39 | 0.46 | 118 | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 00427601

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : MW-18
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/20/90
DATE RECEIVED : 04/21/90
DATE EXTRACTED : N/A
DATE ANALYZED : 04/27/90
UNITS : UG/L
DILUTION FACTOR : 5

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <50 |
| BROMOMETHANE | <50 |
| VINYL CHLORIDE | <5 |
| CHLOROETHANE | <5 |
| METHYLENE CHLORIDE | <25 |
| ACETONE | <5 |
| CARBON DISULFIDE | 15 |
| 1,1-DICHLOROETHENE | <5 |
| 1,1-DICHLOROETHANE | <5 |
| TRANS-1,2-DICHLOROETHENE | <5 |
| CIS-1,2-DICHLOROETHENE | 105 |
| CHLOROFORM | <5 |
| 1,2-DICHLOROETHANE | <50 |
| 2-BUTANONE (MEK) | <5 |
| 1,1,1-TRICHLOROETHANE | <5 |
| CARBON TETRACHLORIDE | <50 |
| VINYL ACETATE | <5 |
| BROMODICHLOROMETHANE | <5 |
| 1,1,2,2-TETRACHLOROETHANE | <5 |
| 1,2-DICHLOROPROPANE | <5 |
| CIS-1,3-DICHLOROPROPENE | 920 |
| TRICHLOROETHENE | <5 |
| DIBROMOCHLOROMETHANE | <5 |
| 1,1,2-TRICHLOROETHANE | <5 |
| BENZENE | <5 |
| TRANS-1,3-DICHLOROPROPENE | <25 |
| BROMOFORM | <50 |
| 2-HEXANONE (MBK) | <50 |
| 4-METHYL-2-PENTANONE (MIBK) | <5 |
| TETRACHLOROETHENE | 30 |
| TOLUENE | <5 |
| CHLOROBENZENE | <5 |
| ETHYL BENZENE | <5 |
| STYRENE | <5 |
| TOTAL XYLENES | <5 |
| DICHLOROBENZENES | <25 |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|-----|
| 1,2-DICHLOROETHANE-D4 (%) | 104 |
| BFB (%) | 101 |
| TOLUENE-D8 (%) | 104 |



Analytical **Technologies** ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

ATI I.D. : 00427601

MATRIX : WATER

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT #: 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004276
DATE EXTRACTED : N/A
DATE ANALYZED : 04/27/90
UNITS : UG/L
DILUTION FACTOR : N/A

COMPOUNDS

RESULTS

| | |
|-----------------------------|------|
| CHLOROMETHANE | <10 |
| BROMOMETHANE | <10 |
| VINYL CHLORIDE | <1 |
| CHLOROETHANE | <1 |
| METHYLENE CHLORIDE | TR<5 |
| ACETONE | <10 |
| CARBON DISULFIDE | <1 |
| 1,1-DICHLOROETHENE | <1 |
| 1,1-DICHLOROETHANE | <1 |
| TRANS-1,2-DICHLOROETHENE | <1 |
| CIS-1,2-DICHLOROETHENE | <1 |
| CHLOROFORM | <1 |
| 1,2-DICHLOROETHANE | <10 |
| 2-BUTANONE (MEK) | <1 |
| 1,1,1-TRICHLOROETHANE | <1 |
| CARBON TETRACHLORIDE | <10 |
| VINYL ACETATE | <1 |
| BROMODICHLOROMETHANE | <1 |
| 1,1,2,2-TETRACHLOROETHANE | <1 |
| 1,2-DICHLOROPROPANE | <1 |
| CIS-1,3-DICHLOROPROPENE | <1 |
| TRICHLOROETHENE | <1 |
| DIBROMOCHLOROMETHANE | <1 |
| 1,1,2-TRICHLOROETHANE | <1 |
| BENZENE | <1 |
| TRANS-1,3-DICHLOROPROPENE | <5 |
| BROMOFORM | <10 |
| 2-HEXANONE (MBK) | <10 |
| 4-METHYL-2-PENTANONE (MIBK) | <1 |
| TETRACHLOROETHENE | <1 |
| TOLUENE | <1 |
| CHLOROBENZENE | <1 |
| ETHYL BENZENE | <1 |
| STYRENE | <1 |
| TOTAL XYLENES | <5 |
| DICHLOROBENZENES | |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|-----|
| 1,2-DICHLOROETHANE-D4 (%) | 102 |
| BFB (%) | 97 |
| TOLUENE-D8 (%) | 102 |

TR - Compound detected at an unquantifiable trace level



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON

ATI I.D. : 004276

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004276

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : 00427601

DATE EXTRACTED : N/A
DATE ANALYZED : 04/27/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE RESULT | CONC. SPIKED | % SPIKED | DUP. % | DUP. % | RPD |
|--------------------|---------------|--------------|----------|-------------|-------------------|-----|
| | | | | SAMPLE REC. | SPIKE SAMPLE REC. | |
| 1,1-DICHLOROETHENE | 15 | 200 | 78 | 178 | 82 | 5 |
| TRICHLOROETHENE | 920 | 275 | 113 | 1250 | 120 | 6 |
| CHLOROBENZENE | <5 | 265 | 245 | 250 | 94 | 2 |
| TOLUENE | 30 | 270 | 81 | 254 | 83 | 2 |
| BENZENE | <5 | 250 | 96 | 245 | 98 | 2 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 004276

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

DATE RECEIVED : 04/21/90
REPORT DATE : 05/22/90

PARAMETER UNITS 01

PH UNITS 7.22



Analytical Technologies, GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT #: 218.2
PROJECT NAME : MONROSE

ATI I.D. : 004276

| PARAMETER | UNITS | ATI I.D. | SAMPLE | DUP. | SPIKED | SPIKE | % |
|-----------|-------|----------|--------|--------|--------|-------------|-----|
| | | | RESULT | RESULT | RPD | SAMPLE CONC | REC |
| PH | UNITS | 00429203 | 7.06 | 7.09 | 0 | N/A | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



Analytical Technologies, Inc.

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT #: 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004283

DATE RECEIVED : 04/21/90

REPORT DATE : 05/22/90

| ATI # | CLIENT DESCRIPTION | MATRIX | DATE COLLECTED |
|-------|--------------------|--------|----------------|
| 01 | G-5 | WATER | 04/21/90 |

----- TOTALS -----

| MATRIX | # SAMPLES |
|--------|-----------|
| WATER | 1 |

----- ATI STANDARD DISPOSAL PRACTICE -----

The samples from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 00428301

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT #: 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : G-5
SAMPLE MATRIX : WATER

DATE SAMPLED : 04/21/90
DATE RECEIVED : 04/21/90
DATE EXTRACTED : 04/25/90
DATE ANALYZED : 05/06/90
UNITS : UG/L
DILUTION FACTOR : 1

| COMPOUNDS | RESULTS |
|---------------------|---------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | <0.010 |
| DELTA - BHC | <0.50 |
| CHLORDANE | <0.020 |
| P, P'-DDD | <0.020 |
| P, P'-DDE | <0.020 |
| P, P'-DDT | <0.10 |
| DIELDRIN | <0.050 |
| ENDOSULFAN I | <0.10 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.050 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <1.0 |
| TOXAPHENE | <0.50 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.020 |
| O, P'-DDD | <0.020 |
| O, P'-DDE | <0.020 |
| O, P'-DDT | <0.010 |
| TOTAL BHC | <0.020 |
| TOTAL DDT | |

SURROGATE PERCENT RECOVERIES

DBC (%)

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Analytical Technologies, GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

| | | | | | |
|--------------|---|------------------------|-----------------|---|----------|
| CLIENT | : | HARGIS & ASSOC.-TUCSON | ATI I.D. | : | 004283 |
| PROJECT # | : | 218.2 | DATE EXTRACTED | : | 04/25/90 |
| PROJECT NAME | : | MONTROSE | DATE ANALYZED | : | 05/05/90 |
| CLIENT I.D. | : | REAGENT BLANK | UNITS | : | UG/L |
| | | | DILUTION FACTOR | : | N/A |

| COMPOUNDS | RESULTS |
|---------------------|---------|
| ALDRIN | <0.050 |
| ALPHA - BHC | <0.010 |
| BETA - BHC | <0.010 |
| GAMMA-BHC (LINDANE) | <0.010 |
| DELTA - BHC | <0.50 |
| CHLORDANE | <0.020 |
| P,P'-DDD | <0.020 |
| P,P'-DDE | <0.020 |
| P,P'-DDT | <0.10 |
| DIELDRIN | <0.050 |
| ENDOSULFAN I | <0.10 |
| ENDOSULFAN II | <0.10 |
| ENDOSULFAN SULFATE | <0.10 |
| ENDRIN | <0.10 |
| ENDRIN KETONE | <0.050 |
| HEPTACHLOR | <0.050 |
| HEPTACHLOR EPOXIDE | <1.0 |
| TOXAPHENE | <0.50 |
| METHOXYCHLOR | <0.50 |
| AROCLOR 1016 | <0.50 |
| AROCLOR 1221 | <0.50 |
| AROCLOR 1232 | <0.50 |
| AROCLOR 1242 | <0.50 |
| AROCLOR 1248 | <0.50 |
| AROCLOR 1254 | <0.50 |
| AROCLOR 1260 | <0.020 |
| O,P'-DDD | <0.020 |
| O,P'-DDE | <0.020 |
| O,P'-DDT | <0.010 |
| TOTAL BHC | <0.020 |
| TOTAL DDT | |

SURROGATE PERCENT RECOVERIES

DBC (%)

126



Analytical Technologies, Inc.

QUALITY CONTROL DATA

ATI I.D. : 004283

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE
REF I.D. : 00428301

DATE EXTRACTED : 04/25/90
DATE ANALYZED : 05/06/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | SPIKED RESULT | % SPIKED SAMPLE | % SPIKED REC.SAMPLE | DUP. REC. | DUP. REC. | RPD |
|------------|--------------|---------------|-----------------|---------------------|-----------|-----------|-----|
| LINDANE | <0.010 | 0.19 | 0.16 | 84 | 0.17 | 89 | 6 |
| HEPTACHLOR | <0.050 | 0.19 | 0.13 | 68 | 0.15 | 79 | 14 |
| ALDRIN | <0.050 | 0.19 | 0.14 | 74 | 0.15 | 79 | 7 |
| DIELDRIN | <0.10 | 0.47 | 0.45 | 96 | 0.46 | 98 | 2 |
| ENDRIN | <0.10 | 0.37 | 0.36 | 97 | 0.37 | 100 | 3 |
| 4,4' DDT | <0.020 | 0.37 | 0.41 | 111 | 0.41 | 111 | 0 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



QUALITY CONTROL DATA

ATI I.D. : 004283

TEST : EPA 8080 (ORGANOCHLORINE PESTICIDES AND PCB'S)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT #: 218.2
PROJECT NAME : MONTROSE
REF I.D. : REAGENT WATER

DATE EXTRACTED : 04/25/90
DATE ANALYZED : 05/06/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE CONC. | RESULT SPIKED | DUP. | DUP. | RPD |
|------------|--------------|---------------|----------------------|----------------------|-----|
| | | | % SPIKED SAMPLE REC. | % SPIKED SAMPLE REC. | |
| LINDANE | <0.010 | 0.20 | 0.19 | 95 | N/A |
| HEPTACHLOR | <0.050 | 0.20 | 0.19 | 95 | N/A |
| ALDRIN | <0.050 | 0.20 | 0.16 | 80 | N/A |
| DIELDRIN | <0.10 | 0.50 | 0.51 | 102 | N/A |
| ENDRIN | <0.10 | 0.39 | 0.46 | 118 | N/A |
| 4,4' DDT | <0.020 | 0.39 | 0.46 | 118 | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$



Analytical Technologies, Inc.

GCMS - RESULTS

ATI I.D. : 00428301

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
 PROJECT # : 218.2
 PROJECT NAME : MONROSE
 CLIENT I.D. : G-5
 SAMPLE MATRIX : WATER

DATE SAMPLED : 04/21/90
 DATE RECEIVED : 04/21/90
 DATE EXTRACTED : N/A
 DATE ANALYZED : 04/24/90
 UNITS : UG/L
 DILUTION FACTOR : 71

COMPOUNDS

RESULTS

| | |
|-----------------------------|-------|
| CHLOROMETHANE | <710 |
| BROMOMETHANE | <710 |
| VINYL CHLORIDE | <71 |
| CHLOROETHANE | <71 |
| METHYLENE CHLORIDE | <355 |
| ACETONE | <710 |
| CARBON DISULFIDE | <71 |
| 1,1-DICHLOROETHENE | <71 |
| 1,1-DICHLOROETHANE | <71 |
| TRANS-1,2-DICHLOROETHENE | <71 |
| CIS-1,2-DICHLOROETHENE | <71 |
| CHLOROFORM | <71 |
| 1,2-DICHLOROETHANE | <710 |
| 2-BUTANONE (MEK) | <71 |
| 1,1,1-TRICHLOROETHANE | <71 |
| CARBON TETRACHLORIDE | <710 |
| VINYL ACETATE | <71 |
| BROMODICHLOROMETHANE | <71 |
| 1,1,2,2-TETRACHLOROETHANE | <71 |
| 1,2-DICHLOROPROPANE | <71 |
| CIS-1,3-DICHLOROPROPENE | <71 |
| TRICHLOROETHENE | <71 |
| DIBROMOCHLOROMETHANE | <71 |
| 1,1,2-TRICHLOROETHANE | <71 |
| BENZENE | <71 |
| TRANS-1,3-DICHLOROPROPENE | <355 |
| BROMOFORM | <710 |
| 2-HEXANONE (MBK) | <710 |
| 4-METHYL-2-PENTANONE (MIBK) | <71 |
| TETRACHLOROETHENE | <71 |
| TOLUENE | 14000 |
| CHLOROBENZENE | <71 |
| ETHYL BENZENE | <71 |
| STYRENE | <71 |
| TOTAL XYLEMES | <355 |
| DICHLOROBENZENES | |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|----|
| 1,2-DICHLOROETHANE-D4 (%) | 99 |
| BFB (%) | 95 |
| TOLUENE-D8 (%) | 96 |



Analytical Technologies, ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

ATI I.D. : 00428301

UNITS : UG/L

MATRIX : WATER

RESULTS

COMPOUNDS

N/A

NONE DETECTED



Analytical Technologies, Inc.

GCMS - RESULTS

REAGENT BLANK

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT #: 218.2
PROJECT NAME : MONTROSE
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 004283
DATE EXTRACTED : N/A
DATE ANALYZED : 04/24/90
UNITS : UG/L
DILUTION FACTOR : N/A

| COMPOUNDS | RESULTS |
|-----------------------------|---------|
| CHLOROMETHANE | <10 |
| BROMOMETHANE | <10 |
| VINYL CHLORIDE | <1 |
| CHLOROETHANE | <1 |
| METHYLENE CHLORIDE | TR <5 |
| ACETONE | <10 |
| CARBON DISULFIDE | <1 |
| 1,1-DICHLOROETHENE | <1 |
| 1,1-DICHLOROETHANE | <1 |
| TRANS-1,2-DICHLOROETHENE | <1 |
| CIS-1,2-DICHLOROETHENE | <1 |
| CHLOROFORM | <1 |
| 1,2-DICHLOROETHANE | <10 |
| 2-BUTANONE (MEK) | <1 |
| 1,1,1-TRICHLOROETHANE | <1 |
| CARBON TETRACHLORIDE | <10 |
| VINYL ACETATE | <1 |
| BROMODICHLOROMETHANE | <1 |
| 1,1,2,2-TETRACHLOROETHANE | <1 |
| 1,2-DICHLOROPROPANE | <1 |
| CIS-1,3-DICHLOROPROPENE | <1 |
| TRICHLOROETHENE | <1 |
| DIBROMOCHLOROMETHANE | <1 |
| 1,1,2-TRICHLOROETHANE | <1 |
| BENZENE | <1 |
| TRANS-1,3-DICHLOROPROPENE | <5 |
| BROMOFORM | <10 |
| 2-HEXANONE (MBK) | <10 |
| 4-METHYL-2-PENTANONE (MIBK) | <1 |
| TETRACHLOROETHENE | <1 |
| TOLUENE | <1 |
| CHLOROBENZENE | <1 |
| ETHYL BENZENE | <1 |
| STYRENE | <1 |
| TOTAL XYLENES | <5 |
| DICHLOROBENZENES | |

SURROGATE PERCENT RECOVERIES

| | |
|---------------------------|-----|
| 1,2-DICHLOROETHANE-D4 (%) | 95 |
| BFB (%) | 97 |
| TOLUENE-D8 (%) | 101 |

TR - Compound detected at an unquantifiable trace level



GCMS - RESULTS

REAGENT BLANK

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON

ATI I.D. : 004283

UNITS : UG/L

COMPOUNDS

RESULTS

NONE DETECTED

N/A



Analytical Technologies, Inc.

QUALITY CONTROL DATA

TEST : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONROSE
REF I.D. : 00428301

ATI I.D. : 004283

DATE EXTRACTED : N/A
DATE ANALYZED : 04/27/90
SAMPLE MATRIX : WATER
UNITS : UG/L

| COMPOUNDS | SAMPLE RESULT | CONC. SPIKED SAMPLE | DUP. % | DUP. % | RPD | | |
|--------------------|---------------|---------------------|-------------|-------------|-------|------|---|
| | | | SPIKED REC. | SAMPLE REC. | | | |
| 1,1-DICHLOROETHENE | <71 | 2800 | 2300 | 82 | 2500 | 89 | 8 |
| TRICHLOROETHENE | <71 | 3900 | 3500 | 90 | 3300 | 85 | 6 |
| CHLOROBENZENE | 14000 | 3800 | 19000 | 132* | 18600 | 121* | 9 |
| TOLUENE | <140 | 3800 | 3600 | 95 | 3600 | 95 | 0 |
| BENZENE | <71 | 3600 | 3500 | 97 | 3500 | 97 | 0 |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

* Result out of limits due to sample matrix interference



Analytical Technologies, Inc.

GENERAL CHEMISTRY RESULTS

ATI I.D. : 004283

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

DATE RECEIVED : 04/21/90

REPORT DATE : 05/22/90

PARAMETER UNITS 01

PH UNITS 7.63



Analytical Technologies GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : HARGIS & ASSOC.-TUCSON
PROJECT # : 218.2
PROJECT NAME : MONTROSE

ATI I.D. : 004283

| PARAMETER | UNITS | ATI I.D. | SAMPLE | DUP. | SPIKED | SPIKE | % |
|-----------|-------|----------|--------|--------|--------|-------------|-----|
| | | | RESULT | RESULT | RPD | SAMPLE CONC | REC |
| PH | UNITS | 00429203 | 7.06 | 7.09 | 0 | N/A | N/A |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$